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**Identity Change in Students Who Study Abroad**

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**Identity Change in Students Who Study Abroad**

**by**

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**Dissertation**

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## Dedication

To my husband Jorge, my parents Peter and Joan, and my sisters Wendy and Jessica

**Acknowledgements**

When I was a child, people would occasionally ask me who my heroes were. The question always perplexed me. I had learned about and admired countless historical figures and literary protagonists who possessed admirable traits, but the label "my hero" seemed too strong and too rich to apply to a distant figure. As I grew up, I realized that my heroes would never be strangers from history books or novels. I realized that my heroes were the people who surrounded me. My heroes are my family, friends, and colleagues.

I have had the honor and privilege of being encircled by heroes who have provided emotional and intellectual nourishment for years. To these worthy individuals, I dedicate my dissertation.

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proud. You and Bill have served as my role models; from you I have learned that the best academics are creative, articulate, committed to ideas and research, and always willing to help new members of the field.

My husband Jorge has been a dedicated source of support and love for nearly nine years now. Jorge, because of you, every day has joy. I am so proud and fortunate to have you in my life, and I treasure the life we have created. The laughter, kindness, encouragement, understanding, and patience that you provided me during my graduate studies have been remarkable. In many ways, I feel we share this Ph.D.

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**Identity Change in Students Who Study Abroad**

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Over 240,000 American students studied abroad in the 2006 - 2007 academic year (Commission on the Abraham Lincoln Study Abroad Fellowship Program, 2005). Despite the large number of students abroad and the breadth of the study-abroad literature (e.g., Dwyer 2004, Anderson, Lawton, Rexeisen, & Hubbard, 2006; Dewey, 2004; Milstein, 2005), there is relatively little work on the psychological ramifications of going abroad. Specifically, few studies investigate issues of identity change in students who study abroad. This dissertation was designed to provide an initial examination of these issues.

Three theories of identity were applied to understand identity change in students abroad. Self-categorization theory (Oakes, Haslam, & Turner, 1994), which emphasizes the fluidity of identity and its dependence on social memberships, predicts that students will internalize the culture abroad and become very connected to it. Self-verification theory (Swann, 1997; Swann, Rentfrow, & Guinn, 2002) states that because people's

personal identities give their lives coherence, meaning, and continuity, people are highly reluctant to change their personal identities. According to self-verification theory, students abroad will cling to their existing identities and remain connected with people from the country of origin. Identity negotiation theory (Swann & Bosson, in press; Swann, 1987) adopts a moderate position, suggesting that people retain their original identities but, under some conditions, modify them in response to exposure to the host culture.

Students spending a semester abroad completed online questionnaires before they left the United States, and three times during the semester abroad. Students changed on several characteristics across the semester abroad. Students abroad changed more than a matched-control group spending the semester at the University of Texas at Austin. Personal characteristics, such as extraversion, agreeableness, and openness to experience, predicted degree of personal change, personal growth, and identification with the host country. Various social behaviors abroad, as well as living with a host family, were correlated with identity change. A model linking each theory with data about various choices of living arrangements, social behaviors, and identity outcomes is presented.

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## Chapter 1: Introduction

Over 240,000 American students studied abroad in the 2006 - 2007 academic year, and at least 640,000 students will study abroad annually by 2016 (Commission on the Abraham Lincoln Study Abroad Fellowship Program, 2005). Despite the large number of students abroad and the breadth of the study-abroad literature, there is relatively little work on the psychological ramifications of studying abroad. Specifically, research is lacking in the area of identity change during study abroad.

Given that students abroad are confronted with new cultures and ways of life, it would seem valuable to measure how students' behavior and identities develop in response to the novel environments and lifestyles they encounter. The current study sought to create a theoretical framework within which to understand the identity processes which develop when students go to a new culture. The study also investigated the personal and situational variables which predict identity change.

First, I present a brief review of the literature to acquaint the reader with past work on study abroad. The identity change literature is reviewed, then three theories which may guide identity change during study abroad are discussed. Research questions are presented, followed by method, results, and discussion.

### *Review of the Study-Abroad Literature*

Research on study-abroad is relatively expansive and interdisciplinary, carried out in fields as diverse as linguistics (e.g., Segalowitz & Freed, 2004), education (e.g., Ingraham & Peterson, 2004), and law (e.g., Ritchie, 2003). Study abroad for college students began at the University of Delaware in 1923 (Thomas, 2002), when eight young

men financed by Pierre S. du Pont studied in Paris. Research on study abroad began in the 1960's. Early research on study abroad sought to define the structure of study-abroad research (Jacobsen, 1963) and to examine the range of changes that took place in study-abroad students (Coelho, 1962).

The types and locations of study-abroad programs have proliferated, as has the research on study-abroad processes and outcomes. Research on study abroad has investigated a wide range of phenomena, some of which are relevant to the current study and some of which are not. (For an overview of topics not germane to the current study, see the Appendix). Currently, two of the most common areas for study-abroad research include cultural benefits and personal growth. Research has also been conducted about the personal and situational variables which most predict successful outcomes abroad.

*Cultural variables.* In terms of cultural benefits, Anderson, Lawton, Rexeisen, & Hubbard (2006) found that a four-week study-abroad program improved cross-cultural sensitivity. Students improved their ability to accept and adapt to cultural differences. Drews, Meyer, and Peregrine (1996) reported that students who had studied abroad tended to think of other national groups in terms associated with the characteristics of individuals. These students were less likely to think of national groups in terms of food, historical events, geography, and other non-personal characteristics. In other words, study abroad seemed to result in more individuated conceptualizations of members of other national groups. Carlson and Widaman (1988) compared students who had studied abroad with those who had not. Study-abroad students showed higher levels of international political concern and interest in other cultures. They also were slightly more

critical toward the United States. They held a more mature, objective perception of their home country. Females and humanities majors tended to be higher in cross-cultural interest prior to study abroad, yet this group still showed increases in cross-cultural interest while abroad. Therefore, it appears that increases on these variables occur in all students, not just students who start at relatively low levels.

Kitsantas (2004) found that study abroad increased students' effectiveness in adapting to new cultures. From before studying abroad to afterward, students made improvements in three areas: emotional resilience, or the ability to cope with stress and ambiguity and bounce back from mistakes; flexibility/openness, or the willingness to think and behave in new ways in a new environment; and perceptual acuity, or the ability to accurately perceive interpersonal cues in new cultures. Students also made improvements in global understanding, becoming less ethnocentric and more able to view the United States in relation to other cultures. Furthermore, students' goals for their study-abroad experience predicted the extent of their cross-cultural adaptation. Students indicating they wanted to study abroad in order to improve cross-cultural competence showed greater gains than students who did not have these goals.

Savicki, Downing-Burnette, Heller, Binder, and Suntinger (2004) found that study-abroad students were higher than at-home students on measures of potential and actual intercultural adjustment, both before and after studying abroad. These findings suggest that study-abroad programs may attract students who are already high in traits that lead to favorable outcomes abroad. Therefore, a longitudinal design and a variety of

predictor measures can help to better understand students' experiences and growth while abroad.

*Personal variables*. In addition to improvement in intercultural variables, there is also some evidence that students undergo personal change while abroad. Milstein (2005) found that 95.50% of study-abroad students self-reported an improvement in communication self-efficacy. Self-reported challenge of the experience abroad was positively correlated with the perceived improvement in communication self-efficacy. Dwyer (2004) found that the vast majority of study-abroad students reported increased self-confidence, better tolerance for ambiguity, and higher maturity after study abroad, with students spending more time abroad reaping more of the benefits. Gurman (1989), who reported that study-abroad students showed higher posttest scores on creativity measures than control students did, concluded that the variety of new experiences that travel brings can inspire new and creative ways of responding. Students' time abroad may also lead them to reconsider their career aspirations (Orahood, Kruze, & Pearson, 2004). Ninety-six percent of business students reported that studying abroad had some influence on their career plans. Fifty-five percent of these students indicated the influence was quite high. Compared to students who had not studied abroad, significantly more study-abroad students reported an interest in working overseas.

*Predictors of positive outcomes.* Various personal, behavioral, and situational characteristics have been linked with positive study-abroad outcomes. Students who were high in extraversion and who were satisfied with contact with members of the host country (the country where they were studying) reported the highest levels of

psychological adjustment while abroad (Searle & Ward, 1990). The authors were careful to point out, however, that personality traits may interact with culture-specific characteristics of the host country to influence students' adjustment. Thus, it is important to consider "cultural fit," the idea that the more closely a student's personality traits resemble host country norms, the more successful the student will be.

Swagler and Jome (2005) reported that North Americans low in neuroticism, high in agreeableness, high in conscientiousness, and with high acculturation to Taiwanese culture had the highest levels of psychological adjustment while living in Taiwan. Becoming more acculturated in the Taiwanese culture had a positive effect on adjustment above and beyond the personality variables. Greater neuroticism was associated with experiencing greater psychological distress while in Taiwan.

Rohrlich and Martin (1991) found that among American students studying abroad in Western European nations, higher frequency of communication with members of the host country was associated with higher satisfaction with the study-abroad experience. Interacting in a number of activities in the host country, such as visiting museums, talking with families, and having positive contact with neighbors were all associated with feeling satisfied with study abroad.

Along similar lines, Kashima & Loh (2006) emphasized that social ties and need for cognitive closure could influence outcomes abroad. Asian students' psychological adjustment in Australia was predicted by social ties with Australians. Social ties with students from their own country did not predict psychological adjustment. Need for cognitive closure (NCC) is the degree to which a person desires a clear and firm solution

to an issue. People high in NCC dislike uncertainty and confusion. In Kashima and Loh's (2006) sample, individuals high in NCC showed poorer psychological adjustment and found the uncertainty inherent in living abroad to be highly stressful. Intriguingly, high NCC individuals with many social ties with Australians did not show poor psychological adjustment, findings that suggest that social ties with host country members may serve as a protective factor.

Oguri and Gudykunst (2002) investigated how self-construal predicted psychological adjustment. The more that Asian international students studying in the United States embraced the independent self-construal, the higher their psychological adjustment. Individuals in the United States tend to have a more independent self-construal, so a close fit between the students' self-construals and the host country's self-construal was associated with more positive psychological outcomes. Having an interdependent self-construal in the United States was not associated with psychological adjustment.

While a large number of studies (e.g., Anderson et al., 2006; Drews et al., 1996; Carlson & Widaman, 1988; Kitsantas, 2004; Savicki et al., 2004; Milstein, 2005; Dwyer, 2004; Gurman, 1989; Orahood et al., 2004) suggests that study abroad can carry many benefits, it is important to recognize that study abroad can also be stressful and difficult. Culture shock, a common phenomenon in students abroad, is the "realization that expected behaviors and perceived values of the new environment are disturbingly dissimilar from those of home" (Zeitlin, 1996, p. 85). Zapf (1991) catalogued over 40 words that people have used to describe the emotions caused by culture shock; these

descriptors include feeling confused, isolated, frustrated, vulnerable, and overwhelmed. Zapf (1991) also found that people who had overcome culture shock and had adjusted to the new culture felt excitement, fascination, confidence, euphoria, acceptance, self-assurance, and satisfaction.

Zaharna (1989) argued that culture shock is more aptly conceptualized as self-shock. Living in a new country can plunge the self into confusion, according to Adler, who noted that going abroad "begins with the encounter of another culture and evolves into the encounter with the self" (1975, p. 18). According to Zaharna, "self-shock rests on the intimate link between Self, Other, and behaviors. Any situation which alters the meanings for behaviors has the potential for hampering the individual's ability to establish and maintain consistent, recognizable self-identities" (1989, p. 517 – 518). Self-shock can occur in people abroad due to the decreased ability to communicate about who they are, as well as the decreased ability to understand others' appraisals of them. Zaharna describes self-shock as a double bind, explaining that "unshared meanings for behaviors increase one's need to confirm self-identities; however, unshared meanings for behaviors decrease one's ability to do so" (1989, p. 501).

In addition to the broad concepts of culture and self-shock, there is evidence that students abroad have trouble in more specific domains. Students abroad had a harder time forming friendships than did local people (Barker, Child, Gallois, Jones, & Callahan, 1991; Zheng & Berry, 1991); students abroad also reported that the friendships they did manage to form in the host country were less satisfying (Furnham & Tresize, 1981). Students' success in forming cross-cultural friendships often depends on how different

the host culture is from the students' home culture (Bochner, McLeod, & Lin, 1977). For example, Redmond and Bunyi (1993) found that among international students at a midwestern university, British, European, and South American students were best at interacting with U.S. students, while Korean, Taiwanese, and Southeast Asian students had more trouble.

Other problems may occur during study abroad. Stroebe, Lenkert, & Jonas (1988) found that American students studying abroad in France showed increased negative stereotypes toward French people. It is also quite common for students abroad to feel prejudice and discrimination from members of the host country (Ward, Bochner, & Furnham, 2001). Experiencing discrimination while abroad is correlated with increased stress, more conflict about identity, and poorer psychological adjustment (Berno & Ward, 1998; Leong & Ward, 2000; Pak, Dion, & Dion, 1991). Concern about language abilities is another stressor for students abroad (Rohrlich & Martin, 1991; Henderson, Millhouse, & Cao, 1993). Trouble forming friendships, perceived discrimination, and language difficulty may explain why loneliness was reported in nearly a quarter of students abroad in Sam and Eide's (1991) sample.

Beyond difficulty associated with studying in a new country, students abroad continue to face stressors that are common to students in general; worries about housing, money, and coursework were frequent (Rohrlich & Martin, 1991). Differences in teaching methods, administrative problems, and the perceived unwillingness of instructors to offer help were three of the top concerns cited by students abroad (Opper, Teichler, & Carlson, 1990).

Empirical evidence makes a strong case for the benefits of study abroad. Anecdotal evidence from students often echoes the sentiment that study abroad is beneficial in many ways. Students' often offer glowing reports of the study-abroad experience, calling it one of the best experiences of their lives. However, empirical evidence also shows that students should be aware that some stress and discomfort will likely be a part of the study-abroad experience.

## Identity

Although some have defined identity in terms of role-related behavior, for the purposes of the current study, identity was defined as a person's self-views, which are thoughts and feelings about the self.

### *Review of the Identity Change Literature*

Little research has focused on identity change in people studying abroad. The only exception that I uncovered was conducted by Kashima and Loh (2006), who found that Asian students studying in Australia tended to see themselves as worthy and valid members of their Australian university, while at the same time seeing themselves as members of their country of origin (the home country). These findings suggest that identity may be somewhat flexible and determined by environmental context.

The near absence of studies about identity change during study abroad is not surprising, given that there exist rather few studies on identity change at all. Unlike mood (e. g., Forgas & Bower, 1987) or stress (e. g., Shiloh, Sorek, & Terkel, 2003) which can be induced or changed experimentally, identity is an overarching and stable construct which does not respond readily to typical laboratory manipulations. As such, identity

change is rarely studied in laboratory settings. Instead, many identity researchers investigate identity change in the wake of an intense or significant life event, such as getting married or extended travel. Identity researchers have shown that identity can shift due to marriage (Burke, 2006), career and family development (Cramer, 2004), specific and intense life events (Kroger and Green, 1996), and living in a new country (Sussman, 2001, 2002). Identity researchers who do not study life events have instead described the personal and contextual variables which can foster identity development (Bosma & Kunnen, 2001; Côté, 1996; Grotevant, 1987).

*Marriage*. Burke (2006) showed that identities can change over time, especially when pre-existing identities continually fail to fit behavior in new situations. Spouses of both genders who, because of situational demands, enacted the role of spouse in a more traditionally feminine way came to adopt a more feminine spouse identity over time. That is, spouses who reported spending more time cooking, cleaning, or housekeeping at Time 1 indicated at Time 2 that their identity as a spouse required them to be more responsible for these activities. Burke (2006) noted that the results of the study emphasize a "dynamic view of identities as always changing (though slowly) in response to the exigencies of the situation" (p. 93).

*Career and family development*. Cramer (2004) studied adult identity across a 24-year time span, using the model first outlined by Marcia (1966), in which current identity is described in terms of exploration and commitment. Individuals who have not made a commitment to a particular identity and have not explored identity are in a state of diffusion. Those who have made a commitment, not through personal exploration, but by

unquestioningly accepting the values or opinions of a key social group, are in a state of foreclosure. Individuals who are currently undergoing identity exploration but have not yet committed are in a state of moratorium. Only individuals who have experienced identity exploration and made a commitment to a particular identity are in a state of achievement. Cramer (2004) hypothesized that defense mechanisms, IQ, and various life characteristics would be associated with moving into a state of identity achievement. One important defense mechanism was identification, in which one adopts the attitudes, behaviors, and values of close friends and family. Overall, the most identity change occurred between early adulthood (mid-30's) and middle adulthood (mid-40's). Less change occurred between middle adulthood and late middle age (late 50's to early 60's). The most common pattern was for participants to move into a state of identity achievement over time, though some participants moved into identity foreclosure. In early adulthood, using the defense mechanism of identification predicted reaching identity achievement. Identity achievement was also predicted by IQ, success in work and family, and being involved in the community. These findings support the broad idea that success in work and relationships, as well as finding one's niche, all foster identity achievement.

*Life events*. Anthis (2002) built on Marcia's (1966) model of identity by hypothesizing about how and why various life events can lead to changes in identity during adulthood. Kroger and Green (1996) presented evidence for the relationship between particular life events and identity change. Based on men's and women's descriptions of events that had been influential in their identity change, Kroger and Green

(1996) identified eight categories. Event types included age graded (e. g., first time voting), history graded (e. g., serving in the Vietnam War), critical life (e. g., one event that was a major setback, such as a serious illness or loss of a job), stage of family life (e. g., birth of a child), exposure to different cultural or social sources of knowledge (e. g., travel), direct influence of significant other (e. g., spouse's influence), internal change (e. g., introspection), and no opportunity to pursue desired goals (e. g., getting to a dead end). Kroger and Green (1996) noted that these life events were often associated with transitions to moratorium status, in which exploration of identity is high and commitment is low. Anthis (2002) created hypotheses based on Farson's (1974) calamity theory of identity growth, which states that tragic and crisis situations often eventually lead to personal growth. Anthis (2002) predicted that stressful life events in the areas of death, health care, crime, finances and family would predict increases in identity exploration and decreases in identity commitment over time. The data supported these predictions.

*Living abroad*. Echoing Kroger and Green's (1996) findings that travel is one factor that can bring about identity change, a small portion of the identity change literature deals with people living outside of their countries of origin. In a study of American managers who worked abroad for up to four years, cultural identity change was measured by asking participants to what degree they felt less American than they did before the international assignment began. Participants who indicated that they felt less American after living abroad reported the highest levels of repatriation distress upon their return to the United States (Sussman, 2001). Furthermore, the more managers indicated that they had changed while abroad, the more they experienced repatriation distress.

Sussman (2002) reported similar findings in a group of American teachers who had lived in Japan for an average of 27 months before returning to the United States. Participants who had somewhat negative affect about their American identity, felt estranged from other Americans, or who felt that others perceived them as atypical Americans reported high repatriation distress. Participants who felt less American in their identities at the end of their stay in Japan also had lower life satisfaction and fewer bonds with other Americans upon repatriation. Participants who felt less American by the end of the stay felt more Japanese and indicated they had changed most (Sussman, 2002). These findings are most relevant to the current study not in terms of their explanations about repatriation distress, but in their support for the concept that people undergo important behavioral, cognitive, and identity changes while overseas.

The findings from Sussman (2001, 2002) also contribute to the debate about what occurs when people return home from overseas. The culture model predicts that while overseas, people simply learn new ways to adjust which can then be applied upon return to the country or origin. Sussman's identity change model (2000, 2001) disagrees, asserting that people successfully adapt to a host country by changing behaviors, thoughts, and even identity. These changes make repatriation difficult. Further dispute for the culture model can be found in Sussman (2000): 8 of 11 people who had completed multiple overseas assignments indicated that each successive repatriation experience was more difficult than the last. Another contribution of Sussman (2002) is the use of an online data collection methodology. Some participants completed questionnaires online, while others completed identical paper questionnaires. These two groups did not differ in

their responses to any of the major measures, supporting the validity of online data collection for participants currently abroad or returning from abroad.

*New experiences*. In addition to empirical findings described above, a number of researchers have written theoretical articles about identity change. Bosma and Kunnen (2001) explained that most of the time, people force new experiences and information into existing cognitive schema and behavioral scripts. This process has the benefits of being automatic and economical on attentional resources. However, people are able to detect when information from a new environment no longer fits an existing schema, and the recognition often causes dissonance. The discomfort results in attempts to revise the identity. According to Bosma and Kunnen (2001), a balanced use of forcing new information into existing schemas, along with revising the identity when necessary, results in the most adaptive outcomes. During study abroad, one could expect the unfolding of the processes Bosma and Kunnen (2001) described.

*Identity capital*. Côté (1996) presented the concept of identity capital, or the idea that some people have the resources, time, and ability for identity change, while others do not. Identity capital involves two types of assets. The first type of assets involves education, social networks, and styles of dress and speech; these are "passports" into new environments, where identity change is more likely. The second type of assets is psychological, including self-efficacy, critical thinking abilities, cognitive flexibility, and self-monitoring. Côté's reasoning suggests that college students who embark on study-abroad programs may have the combination of identity capital assets necessary for identity change.

*Combination of individual and situational factors.* Grotevant (1987) provided more support for the idea that a combination of individual and contextual factors promotes identity change. According to Grotevant (1987), the probability that a person will undergo identity change is determined by individual factors such as self-esteem, self-monitoring, openness to experience, and cognitive abilities. Contextual factors include cultural beliefs and expectations about identity, and family communication processes which stimulate individuality. Peers and school and work environments also offer models for identity, as well as opportunities to explore new identities. Several factors that Grotevant (1987) described are present during study abroad, so the probability of identity change should increase.

*Theories of Identity in the Proposed Research*

According to Swann & Bosson (in press), identity provides people with a sense of who they are based on their prior history. In addition, dentity gives meaning to experiences, directs behavior, and helps people know how to behave and what to expect. Identity researchers (e.g., Swann & Bosson, in press; Oyserman, Bybee, & Terry, 2006; Nelson & Garst, 2005; Nario-Redmond, Biernat, & Eidelman, 2004) often refer to two types of identity. Personal identity includes qualities that make people distinct, unique, and separate from others. These qualities include the physical self, personality, personal goals, biographical knowledge, dispositions, and talents. Social identity is defined in terms of membership or alignment with a specific social group, such as American, Spaniard, woman, Democrat, or student.

Three theories of identity that have guided research are self-categorization theory (Oakes et al., 1994; Turner, Hogg, Oakes, Reicher, & Wetherell, 1987) self-verification theory (Swann, et al., 2002; Swann, 1990), and identity negotiation theory (Swann, 1987; Swann & Bosson, in press). Each theory makes distinct predictions about identity change in students who study abroad.

*Self-categorization theory*. Self-categorization theory (Turner & Onorato, 1999; Turner, Oakes, Haslam, & McGarty, 1994; Onorato & Turner, 2001) emerged as a challenge to the dominant view of self. The dominant view emphasized the uniqueness, relative stability, and individuality of the self (Markus & Cross, 1990), and contained four important components. First, the self-concept was seen as composed primarily of personal identity (Stryker & Statham, 1985). Personal identity contained personality, attitudes, values, goals, beliefs, and styles—anything that distinguished the individual from others. Very strong emphasis was placed on the view of the self as an individual person, unique, special, and different from others. Second, the self was seen as a unique psychological property of the perceiver. Others could not share in the self (Markus, 1977). Third, the dominant view acknowledged that the self could be influenced by social interaction. The self did engage in social interaction, but this part of the self was still a property of the individual person. Moreover, the contents of the self came from personal experience, interpretation of one's own behavior, and from social interaction. One generated one's concept of self by observing the behavior of the self, much as one observed the behavior of others (Bem, 1972). Also, one could form the self-concept through social interaction. Consistent with symbolic interactionist views (e. g., Mead,

1934), one formed the self-concept by observing how one was received and responded to by other individuals, groups, and society in general. Others served as a mirror for the self. Fourth, the self was viewed as a discrete cognitive structure with boundaries. The self was a stable, enduring, and separate cognitive structure in the information-processing system (Higgins & Bargh, 1987). Certainly the facets of the self presented could change depending on situational demands, but the underlying cognitive structure was firm and established.

Self-categorization theorists challenged all four assumptions of the dominant view of self, primarily by making a distinction between personal identity and social identity (Turner, 1982, 1984). They begin by noting that personal identity and social identity are two different levels of self-categorization (Turner et al., 1994). A self-categorization is a "cognitive grouping of oneself and some class of stimuli as identical in contrast to some other class of stimuli" (Onorato & Turner, 2001, p. 156). Self-categorization can take place anywhere along the continuum, from the most specific (personal identity) to the most inclusive (social identity as, for example, a human being). When social identity is activated, for instance, one may categorize oneself as a biologist, quite similar to other biologists and very different from advertising executives. Self-categorization at this level leads to an accompanying social identity.

Self-categorization theory departs from the dominant view by noting that even personal identity is inextricably linked to a group and may even operate in the service of group identity. Turner, for example, pointed out that "social identity is sometimes able to function to the relative exclusion of personal identity," (1984, p. 527) and "at certain

times our salient self-images may be based solely or primarily on our group memberships" (1982, p. 19).

From the vantage point of self-categorization theory, when social identity becomes more salient, personal identity fades into the background. When people define themselves in terms of their social group memberships, and these social identities became salient, people see themselves less as individuals and more as similar and prototypical group members. For example, Kate's personal identity may include traits such as assertive and independent. However, when her social identity as a woman is activated, she will see herself more as the typical woman—nurturing and affiliative—and downplay the traits that set her apart from other women. In this case, depersonalization of the self occurs—a "cognitive redefinition of the self, from unique attributes and individual differences to shared social category memberships and associated stereotypes" (Turner, 1984, p. 258). Another important component of self-categorization theory is that because social identities are so important to the self-concept, people attempt to join groups that they regard as positive and that compare favorably with relevant outgroups (Turner & Onorato, 1999).

Therefore, the characterization of the self offered by self-categorization theorists differs from the previously dominant view of the self on each of the four components of the self discussed above. First, as outlined above, and in contrast to the dominant view, the self is not purely a personal self. The self encompasses many different levels of inclusiveness. The personal self is only one level of inclusiveness. Social selves are other levels, and social selves can vary in levels of inclusiveness. One may categorize oneself

as a molecular biologist, a biologist, a scientist, or as an educated person in general. All of these are social identities with their relevant characteristics, stereotypes, and implications for behavior. In contrast to the dominant view of the self, people do not have fixed individual identities (Turner & Onorato, 1999). Instead, there is ever-changing variation in the self-categorization people choose. Variation is affected by the goals of the perceiver and the characteristics of the situation. When a person embraces a social identity and personal identity becomes less salient, the process is one of depersonalization; it is not loss of self, but change in the level and content of the self (Turner & Onorato, 1999).

Second, while the dominant view sees the self as a unique psychological property of the perceiver, self-categorization theory points out that social identities are shared, not unique. People in a social group consensually understand what it means to be a member in that group. As a certain social identity becomes salient, the behaviors of the people in that group become more similar. But social identities themselves are not fixed entities. They are ever-changing depending on context, and social group members are able to adjust their behavior and thinking to account for this fact. Onorato & Turner (2001) emphasize that "'we' Australians may perceive ourselves as hardworking compared to [some cultural groups] but pleasure loving compared to Americans" (p. 162).

Third, social identity is not a looking-glass self, or made up of the reflected appraisals of other people, as the dominant view maintains. Self-categorization theory points out that people are not uniformly influenced by others; rather, they accept influence from ingroup members and reject influence from outgroup members (Turner,

1991). Therefore, once a person self-categorizes as a member of a certain group, fellow group members can influence the self, but outgroup members cannot. This facet of self explains how persuasive messages coming from powerful sources can be rejected; if the source of the message is not the ingroup, the message may be ignored. An important implication of this view of self is that influence from ingroup members is accepted "precisely because they not *others*, but *self*" (Turner & Onorato, 1999, p. 29).

Fourth, the dominant view describes the self as a fixed cognitive structure. Self-categorization theory, however, declares that the self emerges and changes moment by moment. The self is based on the perceiver's choice of a specific social identity, and reflects goals of the current situation. The self is not constructed of pre-formed, already-stored self-concepts. Instead, self-concepts and self-categories change to fit the perceiver's current social situation.

> The concept of the self as a separate mental structure does not seem necessary, because we can assume that any and all cognitive resources—long-term knowledge, implicit theories, cultural beliefs, social representations, and so forth—are recruited, used, and deployed when necessary to create the needed self-category. Rather than a distinction between the activated self and the stored, inactive self, it is possible to think of the self as the product of the cognitive system at work, as a functional property of the cognitive system as a whole (Turner et al., 1994, p. 459).

Self-categorization theorists (e.g., Turner & Onorato, 1999) do not argue against the idea that the self can be somewhat stable and consistent; an amorphous and chaotic

self does not necessarily result from self-categorization processes. Rather, consistency results from a number of sources. First, motives, expectations, and background knowledge often cause the self to continually select the same social identities. Along the same lines, cultural rules and social norms do not change values rapidly. Thus, the social identities which the self chooses can be expected to stay relatively stable across time, as long as situational constraints remain stable. For example, Michael could theoretically choose to adopt any social identity he chooses. However, Michael has gone to law school, and has spent the past ten years working as a lawyer. On the weekends he plays soccer. His motives, expectations, and situational constraints will likely constrain him to the social identities of lawyer and recreational soccer player. Adopting other identities would clearly be at odds with reality.

It is worth noting that the very factors which hold identity somewhat stable, according to self-categorization theory, may undergo change during study abroad. In addition to the vastly different contexts and situations they encounter, students' lack of background knowledge about the host country may lead them to adopt new social identities. In fact, Hogg and Grieve (1999) stated that the reduction of uncertainty about the self is a fundamental human motive, and people join groups to reduce uncertainty. Hogg and Grieve's (1999) study showed that participants adopted new social identities to avoid the uncertainty they faced in a new environment. Research outside the laboratory also supports people's tendency to form groups as a way to reduce uncertainty (Sussman & Hogg, 1998). College students who had recently arrived at a large public university indicated how many clubs and societies they planned to join. The higher the students'

level of uncertainty, the more clubs students had joined or planned to join. These results suggest that students abroad may be eager to adopt the social identities of their host countries in order to reduce uncertainty.

Onorato and Turner (2004) provided empirical evidence for the influence of social identity. In one study, women, including those who viewed themselves as independent, rated themselves as dependent when their social identities as women were made salient. Men, including those who viewed themselves as dependent, rated themselves as independent when their social identities as men were made salient. When the social identity was made salient, women responded to adjectives describing traits of dependence significantly more quickly, and men responded to adjectives describing traits of independence significantly more quickly. These findings occurred regardless of whether men and women indicated that these traits were descriptive of their personal identities. The results challenged previous research (e. g., Markus, 1977), which claimed that central self-aspects are hardest to change. Onorato and Turner (2004) showed that even women with independent personal self-views and men with dependent personal-self views reported different self-views when social identity was made salient. The fact that individuals change their self-views in certain conditions provides support for self-categorization theory.

*Self-verification theory*. Self-verification theory (Swann et al., 2007; Swann, 1997, 1983) states that people's personal identities give their lives coherence, meaning, and continuity. Therefore, people go to great lengths to preserve and confirm their identities. One of the main tenets of self-verification theory is that people prefer to

interact with others who see them as they see themselves. This is the case even for people with negative self-views (Swann, Wenzlaff, Krull, & Pelham, 1992; Swann, Wenzlaff, & Tafarodi, 1992).

One striking difference between self-verification theory and self-categorization theory is the theories' views of the persistence of personal identity. Self-categorization theory describes personal identity as *an* identity, one of many, which is often overridden when a person chooses to embrace a salient social identity. In self-verification theory, in contrast, personal identities are critical to people's sense of self and they do not relinquish these identities when social identities are salient.

Self-verification theory (Swann, Stein-Seroussi, & Giesler, 1992; Swann, 1983) is built on the assumption that stable self-views, also referred to as personal identity, allow people to know themselves, understand their lives, and guide their interactions with others. People pursue verification of their self-views for epistemic and pragmatic reasons (Swann et al., 2002). From an epistemic standpoint, people prefer others who share their reality. Take the shy and bookish librarian, for example, whose husband remarks that she is a social butterfly whose intellectual competence is questionable. This lack of connection between the woman's self-view and her husband's opinion of her could lead her to the jarring conclusion that she is not in touch with reality. People pursue self-verification for pragmatic reasons as well. People prefer others who see them as they see themselves because this shared knowledge allows them to navigate their social worlds efficiently and adaptively. Consider a clumsy, unathletic woman whose friends are aware of her lack of ability or interest in sports. The woman can rest assured knowing that her

friends will not invite her to join a softball team or to play sand volleyball. In this way, the woman steers herself into social settings in which she can be assured that others have realistic expectations of her.

Attaining verification of self-views is so important that people employ a variety of behavioral and cognitive strategies to meet their self-verification goals (Swann, 1983). Behavioral strategies include seeking out interaction partners who verify people's self-views, displaying identity cues, and enacting interpersonal prompts.

To investigate people's desire for self-verifying interaction partners, Swann, Stein-Seroussi, & Giesler, (1992) gave participants with positive or negative self-views the choice between interacting with an evaluator who viewed them positively or with an evaluator who viewed them negatively. People with positive self-views preferred to interact with the positive evaluators, and people with negative self-views preferred to interact with negative evaluators. In fact, the desire for self-verifying feedback is so strong that people with negative self-views preferred to interact with a negative evaluator even when given the alternative to engage in a different activity (Swann, Wenzlaff, & Tafarodi, 1992). The tendency for people to want to be seen as they see themselves has been widely established in numerous research studies (Hixon & Swann, 1993; Swann, Pelham, & Krull, 1989), as well as in relationships. When people were married to partners who saw them either more or less positively than they saw themselves, intimacy suffered (De La Ronde & Swann, 1998) and people became less committed to their spouses (Swann, Hixon, & De La Ronde, 1992).

An important distinction that self-verification theory makes is that people with negative self-views do not relish or enjoy receiving negative feedback. When participants with negative self-views received negative feedback, they felt depressed, anxious, and hostile (Swann, Griffin, Predmore, & Gaines, 1987). However, these participants also regarded the feedback as accurate and the evaluator as competent. Participants with negative self-views experience positive affect after receiving positive feedback, but then they realize cognitively that the feedback just does not "fit" them. They therefore opt for the accuracy of a negative evaluation over the pleasure of a positive evaluation.

Another way people make certain they get self-verified is by displaying identity cues—cues about who they are and how they would like to be treated (Swann et al., 2002). People's personal appearances, including clothing and posture, send powerful messages to the world about their affluence, status, occupation, and favorite activities. The adage "don't dress for the job you have, dress for the job you want," underscores that people's appearances communicate a wealth of information about who they are. The ambitious public relations coordinator who is always perfectly coiffed communicates her dedication and career goals, just as the executive with a commanding stance and stride emphasizes that she expects to be treated with respect.

The third way that people bring about self-verification in their interactions with others is by interpersonal prompts, which involve clearly and verbally conveying to others who they are. When people feel that others see them in a non-verifying way, they often intensify their efforts to make others see them as they see themselves. In a study by Swann and Read (1981), participants who considered themselves likeable obtained very

positive reactions from evaluators when they were told beforehand that the evaluators disliked them. Participants who considered themselves dislikeable obtained very negative reactions from evaluators when they were told beforehand that their evaluators liked them. People are eager to clearly and verbally set others straight about who they are, even when it means changing an interaction partner's view from positive to negative. The propensity to resist non-self-verifying feedback depends on the certainty, centrality, and importance of the aspect of identity in question (Swann & Pelham, 2002). In Swann and Ely (1984), evaluators interviewed participants who were either certain or uncertain about their self-perceived levels of extraversion. When evaluators were highly certain about their evaluations, participants low in self-certainty answered in ways that confirmed the evaluators' views, even when it meant disconfirming their own views. This was not the case with participants high in self-certainty, who refused to accept the evaluators' views, even when the evaluators' views were highly certain.

Evidence for interpersonal prompts can also be found in real-world situations, such as college roommate relationships (McNulty & Swann, 1994) and MBA study groups (Swann, Milton, & Polzer, 2000). The results of two longitudinal studies showed that students brought their roommates to see them as they saw themselves, whether the students' self-views were positive or negative. In an examination of MBA students' study groups, individual members brought other group members to see them as they saw themselves. This phenomenon was stronger than the opposite tendency, predicted by self-categorization theory, for group members to influence the self-views of the individuals in the group. Swann et al.'s (2000) findings dispute the assumption of self-categorization

theory that when people define themselves in terms of their social group memberships, they see themselves less as individuals and more as similar and prototypical group members. Clearly, the students in the MBA study groups were intent upon showcasing their personal identities in the group setting.

Self-verification strivings are not limited to personal traits. In related research recently conducted in Spain, participants were more interested in interacting with people who verified rather than disconfirmed their group identity (Gomez, Seyle, Huici, & Swann, 2007). Furthermore, when participants felt that their group identity was verified, they felt more understood, felt that they could be themselves, and felt that others saw them as they saw themselves. These findings occurred regardless of whether the group identity was positive or negative. Self-verification strivings actually tended to override self-enhancement strivings, in that people preferred to interact with evaluators who were verifying and negative over those who were non-verifying and positive.

When behavioral tools of self-verification are not enough, people can rely on a number of cognitive strategies to ensure self-verification. First, people attend to self-verifying feedback while ignoring non-self-verifying feedback. In Swann and Read (1981, Study 1), participants who thought of themselves as likeable spent more time reading feedback that they expected to be positive, and participants who thought of themselves as dislikeable spent more time reading feedback they expected would be negative. Second, people remember feedback in self-verifying ways. In Swann and Read (1981, Study 3), participants heard an evaluator say positive and negative phrases about them. Shortly afterward, participants were asked to recall as many of the phrases as

possible. Participants who considered themselves likeable remembered more positive than negative statements; participants who considered themselves dislikeable remembered more negative than positive statements. Third, people can actively convince themselves of the validity and trustworthiness of the feedback they receive. Swann et al. (1987) gave participants evaluations after they had delivered a speech. Participants with positive self-views who received positive feedback saw the feedback as more accurate and the evaluator as more competent. Participants with negative self-views who received unfavorable feedback saw it as more accurate and the evaluator as more competent.

In sum, self-verification theory asserts that people's personal identities give enormous coherence and meaning to their lives. People are unwilling to part with the regularity and uniformity that personal identities provide. For this reason, people use a number of strategies to retain these personal identities.

*Identity negotiation theory.* Identity negotiation theory (Swann, 1987; Swann & Bosson, in press) assumes that for people to maintain their identities, they must receive a steady supply of nourishment from the social environment. *Identity negotiation* "refers to the processes through which people work to obtain such nourishment" (Swann & Bosson, in press, p. 2). Contrary to self-categorization theory, identity negotiation theory assumes that identities are inclined to remain somewhat stable rather than being computed moment-by-moment based on signals from the social environment. Identity negotiation theory presents identity change as a slower, richer, more complex process, in which the self and the environment interact.

According to Swann and Bosson (in press, p. 10):

> Three identity-related needs may play especially important roles in the identity negotiation process: agency (which encompasses feelings of autonomy and competence), communion (which encompasses feelings of belonging and interpersonal connectedness, and psychological coherence (which encompasses feelings of regularity, predictability, and control).

People are often able to achieve their needs for agency by underscoring the personal qualities which make them unique and set them apart from others (e. g., Hornsey & Hogg, 1999). People achieve their needs for communion by engaging in pleasant and meaningful relationships with others (e. g., Pinel, Long, Landau, Alexander, & Pyszczynski, 2006). People achieve their needs for psychological coherence by engaging in the interpersonal and cognitive strategies to bring about self-verification (e. g., Swann et al., 2002).

Identities may change when people negotiate situated identities that clash with their chronic identities (Swann & Bosson, in press). Situated identities are a person's identity within a specific situation. In certain situations, a person's negotiated situated identity will overlap very little with his or her initial identity. A trusting young woman from a small town may move to New York City and soon recognize that it is not safe or healthy to wear her heart on her sleeve and be so trusting. She may, in certain situations where risk is present, adapt the new identity of tough New Yorker to meet her goals.

When people enter new environments or cultures, as they do during study abroad, they may be particularly likely to develop situated identities for two reasons. New

environments or cultures can limit people's supply of self-verifying feedback. In addition, people's need to belong often becomes strongly activated in a new environment or culture. When needs for connectedness outweigh needs for coherence, situated identities which do not match initial identities are more likely to emerge.

One of the most prominent strengths of identity negotiation theory is that it allows for both overall stability and change. Identity negotiation often results in a person receiving feedback which confirms his or her initial identity. However, five conditions increase the chance of long-term identity change (Swann & Bosson, in press). First, identity change may occur when an aspect of an identity being negotiated is uncertain or unimportant. A person may not see herself as particularly fond of art, and this trait may not matter much to her. She may then meet several friends who love visiting art museums. In order to fulfill her needs for connectedness, she may accompany them to museums and eventually find herself enjoying the art. The low certainty and low importance of her initial identity will make this change easier. Second, identity change may occur when interpersonal feedback or experiences do not support the existing identity. Despite people's powerful abilities to pay attention to and remember self-confirmatory feedback (Swann & Read, 1981), people notice when their environments fail to provide even a modicum of self-verifying feedback. If Mark sees himself as capable, then enters an environment where he does not speak the language, he will undoubtedly stop getting feedback that he is capable. Third, identity change will result especially when the feedback and experiences are difficult or impossible to dismiss. If Mark can dismiss the feedback relatively easily because he is on a three-day business

trip, his identity will not change. However, a longer stay may precipitate identity change. Fourth, identity change may occur when identity-inconsistent feedback or experiences still turn out to be highly desirable to the negotiator. If a shy man briefly behaves in a friendly manner, he may get non-self-verifying feedback that he is being gregarious and fun. He may also get the attention of several attractive women. Such desirable outcomes will likely lead to more lasting identity change. Fifth, identity change may occur when a current environment does not have the social networks and resources necessary to maintain a certain identity. If a young woman who views herself as a proud Texan spends several months in Japan, she may not have regular contact with people who reinforce her identity as a Texan. She may be surrounded by people who do not know where Texas is, are not familiar with what being Texan means, and do not understand her constant desire for great barbecue. Therefore, she may shift from the Texan identity purely because the foundation for that identity no longer exists.

Intriguingly, all five of the conditions which promote identity change are present in varying degrees when people enter new cultures, or more specifically, when they study abroad. In addition, new environments carry new social norms and expectations that may bring about changes in identity (e. g., Markus & Kitayama, 1991). People also become more self-focused in new environments, (Swann & Bosson, in press), a process which over time can result in identity change. In fact, Anthis and LaVoie (2006) found that being ready to change was associated with identity development over time. Thus, attention to identity, and desire to change identity, can be an influential combination. Swann (1996), however, warned that for self-imposed identity change to be most

effective, people must abandon relationship partners and contexts which provide them with self-verifying feedback for the previous identity. Study abroad is a fertile ground for identity change precisely because contact with people and contexts that support the previous identity is substantially reduced.

## Limitations of Existing Research and Contributions of the Current Study

A large limitation of the existing study-abroad literature, excluding studies of language acquisition, is that much of it relies on retrospective reports. Most study-abroad research (e.g., Drews et al., 1996; Carlson & Widaman, 1988; Orahood et al., 2004; Rohrlich & Martin, 1991) has asked students to reflect on their study-abroad experiences after they have returned to the country of origin. In fact, many studies collect data from students who returned from study abroad up to a year and half earlier. Another common approach has been to ask students to complete measures before study abroad begins, and after it ends, but not during the experience itself (e. g., McCabe, 1994; Anderson et al., 2006; Kitsantas, 2004). In some cases, data were collected from students while they were abroad, but at only one time point (e. g., Searle & Ward, 1990; Kashima and Loh, 2006; Oguri & Gudykunst, 2002; Swagler & Jome, 2005), which precludes the investigation of change across time. The use of retrospective, non-longitudinal designs is understandable. Administering surveys across time in worldwide locations, and ensuring that participants complete all questionnaires, are challenging tasks.

The current study sought to address these limitations by using a longitudinal design, and by asking students about study-abroad events and behaviors as they occur. In addition, the study was conducted online. The use of online questionnaires is expanding

and becoming a valuable research tool in psychology (Gosling, Vazire, Srivastava, & John, 2004). Two specific benefits for the current study are that online studies are the easiest way to get study-abroad participants all over the world to participate, and the convenience helps improve participants' willingness to complete the questionnaires.

## Statement of Research Questions

Because identity tends to be relatively stable, we assumed that if we were to observe identity change, it would be optimal to observe participants over a relatively long time, thus maximizing the chances that some event would occur that would promote identity change. For this reason, only participants who spent a full semester abroad were recruited.

*Research Question 1: Do students who study abroad experience change in identities, beliefs, and feelings?*

To address the first research question, identity change was operationalized as change on various psychological variables from (a) the first data collection point, before participants left the United States to (b) the fourth data collection point, when students had spent 12 weeks in the host country. I also included variables, such as identification with the host country, that were most appropriately measured after students were abroad,. For these variables, identity change was operationalized as change from (a) the second data collection point, when students had spent 2 weeks in the host country to (b) the fourth data collection point, when students had spent 12 weeks in the host country.

Over time, students may experience change in satisfaction with life, self-esteem, worldliness, ethnocentrism, and identification with the host country or United States. It is

important to note that the degree of identity change may depend on various personal and situational characteristics which are discussed later.

In addition to measuring change across time in specific domains, it was important to measure students' perceptions of overall personal growth and personal change while abroad. Therefore, after students had been in the host country for 12 weeks, they also reported the level of personal growth and personal change they had experienced.

To determine if identity change was a function of the study-abroad experience, it was necessary to use a control group at the home university. A valid argument is that students who study abroad tend to be relatively high functioning and prone to positive development regardless of where they are. Students who study abroad are also likely to be quite different from the general college population. To address this concern, students abroad in spring 2007 or fall 2007 were compared to students who had been accepted to study abroad in spring 2008 but had not yet left for the experience. These analyses should help determine if identity change is a function of the study-abroad experience itself, or if people who choose to study abroad simply have characteristics which facilitate identity change. Students in each group were compared on variables such as personal growth, personal change, life satisfaction, and worldliness.

*Research Question 2: Which personal variables predict change in identity, beliefs, and feelings during study abroad?*

There is considerable evidence that various personal characteristics predict favorable outcomes during the study-abroad experience (Searle & Ward, 1990; Swagler & Jome, 2005). Thus, it makes sense that personal characteristics may make identity

change during study abroad more likely. Variables which may predict identity change during study abroad include personality traits (e.g., McCrae & Costa, 1986), such as extraversion, emotional stability, agreeableness, conscientiousness, and openness to experience. Low need for cognitive closure (Kashima & Loh, 2006), emotion regulation strategies (e.g., Gross & John, 2003), ethnocentrism (Neuliep, 2002) and self-esteem (e.g., Tafarodi & Swann, 2001) may also predict identity change abroad. Finally, competence in the language of the host country is a key component of intercultural communication competence (Chen & Starosta, 1996), and a strong predictor of intercultural adjustment (e.g., Ward & Kennedy, 1993). As such, language competence may influence participants' degree of identity change abroad.

*Research Question 3: Which situational variables or behaviors correlate with change in identity, beliefs, and feelings during study abroad?*

In addition to personal variables which may influence identity change, students abroad may engage in numerous situations, or enact certain behaviors, which increase or decrease the likelihood of identity change. For example, students may choose to study in an English-speaking country, or in a country where the language is not English. Some students may choose to speak in the host country language, talk to and make friends with host country members, attend cultural events, eat the host country food, and travel within the host country during their free time. Other students may choose to speak English whenever possible, talk only to other Americans in their study-abroad program, make friends with Americans, not attend cultural events, eat food from the United States, and travel outside the host country. The accumulation of these decisions and daily behaviors

over several weeks may predict identity change. Finally, the behaviors and situations choose while abroad may also lead to varying levels of self-verification in the host country. Therefore, existence of self-verification in the host country was included as a predictor of identity change.

*Research Question 4: Are students' living arrangements abroad associated with change in identities, beliefs, and feelings?*

While abroad, students must choose where they will live. Students often spend considerable time interacting with their living partners, so living arrangements may be an important component for identity change. Several options for living arrangements may exist, but the most common options are to live with a host family, to live with other American students, or to live with a mix of people from various countries. Identity change may be especially likely to occur if students form close or important relationships with living partners from the host country. Opper et al. (1990), Searle and Ward (1990), and Rohrlich and Martin (1991) found that interaction with members of the host country led to positive outcomes, such as satisfaction and psychological adjustment. In addition to these outcomes, the formation of relationships with people from the host country may be a strong catalyst for identity change during study abroad.

## Chapter 2: Method

*Participants*

Two groups of participants took part in the study. 600 University of Texas at Austin students studying abroad for a semester in spring 2007 or fall 2007 were invited to participate. These students completed various questionnaires before leaving the United States; they completed questionnaires again 2, 8, and 12 weeks after they had arrived in their study-abroad location. Students in this group voluntarily completed the questionnaires in exchange for a chance to win $500 and one of three iPod shuffles in a drawing.

Due to the longitudinal nature of the study, the number of participants decreased with each phase. 190 students completed the questionnaires before leaving the United States, 123 students completed them after 2 weeks abroad, 120 students completed them after 8 weeks abroad, and 102 students completed them after 12 weeks abroad.

Because only about 4% of University of Texas at Austin students study abroad each year, students who study abroad are a highly self-selected group. Therefore, 300 students who had been accepted to study abroad in spring 2008 were invited to participate in fall 2007 while still at the University of Texas at Austin. One hundred five of these students completed a subset of the personality and behavior questionnaires at one time point. A longitudinal study of the control group was not possible because students found out about their acceptance to study abroad in spring 2008 relatively late in the fall 2007 semester. Students in the control group voluntarily completed the questionnaires in exchange for a chance to win an iPod shuffle in a drawing.

There were three inclusion criteria for the study. First, students were required to be on semester-length programs only. Students in the second semester of a year abroad, for example, were not permitted to participate. Second, students were included only if they had arrived abroad within 20 days of the beginning of classes. Students filled out online surveys 2, 8, and 12 weeks after the start date of their classes abroad. Students who had arrived over 20 days before classes started made it difficult to make certain conclusions about the timing of identity change abroad. For example, a student who arrived abroad 40 days before classes started would have filled out the "2-week" survey after being abroad for 54 days, leading to ambiguity and lack of precision in the results. Third, students were included if they had relatively little or no previous experience living abroad, Students who indicated they had lived abroad previously for 0 to 6 years were included in the analyses.

Once all inclusion criteria were met, the data set consisted of 132 students completing the questionnaires before leaving the United States (86 female, $M = 21.96$ years, $SD = 2.63$), 87 students completing the questionnaires after 2 weeks abroad (56 female, $M = 21.92$ years, $SD = 2.43$), 84 students completing the questionnaires after 8 weeks abroad (56 female, $M = 22.03$ years, $SD = 2.53$), and 75 students completing the questionnaires after 12 weeks abroad (50 female, $M = 21.80$ years, $SD = 2.39$). Descriptive statistics about the countries where participants studied are presented in the Appendix.

Excluded participants did not differ from the rest of the sample on any other variables of interest. Participants who completed all four phases of the survey were

significantly higher in conscientiousness than participants who completed only the first phase of the survey, $t(126) = 2.51$, $p = .01$. There were no differences between the groups on other variables of interest.

*Measures*

All participants reported demographic information, such as gender, age, year in school, and major, in addition to the measures described below. The procedure subsection contains an explanation of when and how often students completed each measure over the course of the study. A correlation matrix of various measures administered in the study is presented in the Appendix.

*Personality.* Personality was assessed using the Ten-Item Personality Inventory (TIPI; Gosling, Rentfrow, & Swann, 2003), a brief measure of the Big Five domains of personality (McCrae, 2002). The TIPI is a 10-item scale which measures traits of emotional stability, agreeableness, openness to experience, conscientiousness, and extraversion (αs = .42.to .83; for more information about why low alpha reliability is not problematic on the TIPI, see Gosling et al., 2003; Kline, 2000; Wood & Hampson, 2005). Participants used a 7-point scale (1 = *disagree strongly*, 7 = *agree strongly*) to indicate if they possessed traits such as "extraverted, enthusiastic," "critical, quarrelsome," or "calm, emotionally stable." Because it was expected that openness to experience could be a particularly important predictor of identity outcomes while abroad, participants also completed the 10 openness items (α = .73) from the Big Five Inventory (BFI; John & Srivastava, 1999). The additional openness items increase the power to find relationships between openness and various outcome variables. Participants used a 5-point scale (1 =

*disagree strongly*, 5 = *agree strongly*) to indicate to what extent they saw themselves as someone who "is original, comes up with new ideas," "has an active imagination," and "is inventive."

*Foreign language competence*. Study-abroad participants who gave their consent allowed researchers to view their grades in all foreign language courses taken at the University of Texas at Austin.

*Need for closure.* Need for closure was measured with Kashima & Loh's (2006) scale (α = .88). Participants used a 5-point Likert scale (1 = *strongly disagree*, 5 = *strongly agree*) to respond to 9 items, including "When I am confused about an important issue, I feel very upset," "I prefer to socialize with familiar friends because I know what to expect from them," and "I enjoy having a clear and structured way of life."

*Emotion regulation.* Emotion regulation was measured with the Emotion Regulation Questionnaire (ERQ; Gross & John, 2003). The ERQ has two factors: reappraisal (α = .85) and suppression (α = .78). On a 7-point Likert scale, participants indicated their agreement (1 = *strongly disagree*, 7 = *strongly agree*) with items such as "When I want to feel more positive emotion, such as joy or amusement, I change what I'm thinking about," "I keep my emotions to myself," and "When I'm faced with a stressful situation, I make myself think about it in a way that helps me stay calm."

*Person-culture fit.* Person-culture fit was assessed using an adapted version of Cable & Judge's (1996) perceived person-organization fit scale (α = .87). On a 5-point Likert scale (1 = *not at all*, 5 = *completely*), participants answered 3 items, including "To

what degree do you feel your values match or fit your host country?" and "Do you think the values and 'personality' of your host country reflect your values and personality?"

*Reasons for study abroad.* Reasons for study abroad were measured using an open-ended question, "Why are you going abroad?" In addition, participants used a 7-point Likert scale (1 = *strongly disagree*, 5 = *strongly agree*) developed by the author to indicate if they were going abroad for different reasons, such as to have fun, to learn a new language, or to escape a negative situation at home.

*Satisfaction with life.* The Satisfaction with Life Scale (SWLS; Diener, Emmons, Larsen, & Griffin, 1985) measured participants' general impressions of life (α = .89). Participants used a 7-point Likert scale (1 = *strongly disagree*, 7 = *strongly agree*) to indicate their agreement with statements like "The conditions of my life are excellent," "I am satisfied with my life," and "If I could live my life over, I would change almost nothing."

*Satisfaction with study-abroad experience*. Participants reported how satisfied they were with their study-abroad experience (0 = *not at all*, 6 = *extremely*) during the past week (α = .91). At the final data collection point, participants also indicated how satisfied they were with the overall study-abroad experience (α = .83).

*Self-esteem.* Tafarodi and Swann's (2001) scale measured self-esteem. This 16-item scale measures two dimensions of self-esteem – self-liking and self-competence – which are often confounded in older self-esteem measures (e.g., Rosenberg, 1989). Self-liking (α = .90) refers to how much one likes oneself. Self-competence (α = .79) refers to how capable one believes one is. Participants used a 5-point Likert scale (*1 = strongly*

*disagree, 5 = strongly agree*) to report their agreement with statements such as "I am highly effective at the things I do," "I am secure in my sense of self-worth," and "I feel great about who I am."

*Ethnocentrism.* Attitudes about the United States and the host country were measured using the Revised Ethnocentrism Scale (Neuliep, 2002). Participants used a 5-point Likert scale to indicate their agreement (1 = *strongly disagree*, 5 = *strongly agree*) with 22 items (α = .87), including "Most other cultures are backward compared to my culture," "My culture should be the role model for other cultures," and "Lifestyles in other cultures are not as valid as those in my culture."

*Identification with the host country and with the United States.* Participants used a 7-item Likert scale (0 = *not at all*, 6 = *extremely*) to indicate their identification with the host country. The four-item measure (α = .84) included statements such as "Over time, I've come to think of myself more as a member of my host country," and "It's important for me to think of myself as a member of my host country." Participants also used a 7-item Likert scale (0 = *not at all*, 6 = *extremely*) to indicate their identification with the United States. The three-item measure (α = .80) included statements such as "It's important for me to think of myself as a person from the United States in my host country," and "I feel complimented when people recognize me as a person from the United States." Both scales were developed by the author and her adviser for the purposes of the current study.

*Self-verification in the host country.* Participants used a 7-point Likert scale (0 = *not at all*, 6 = *extremely*) to indicate the existence and importance of self-verification in

the host country. The four items measuring the existence of self-verification in the host country (α = .92) included “People from my host country see me as I see myself,” and “People from my host country understand who I am.” The four items measuring the importance of self-verification in the host country (α = .92) included “It is important to me that people from my host country treat me in a way that makes me feel understood,” and “It is important to me that people from my host country see me as I see myself.” The scale was developed by the author and her adviser.

*Personal growth.* Participants reported personal growth by using Ingraham and Peterson’s (2004) 9-item measure of personal growth (α = .92). Participants indicated on a 5-point Likert scale (1 = *not at all*, 5 = *extremely*) the extent of the growth they experienced while studying abroad. Items include “Study abroad has enhanced my independence,” “My study-abroad experience has increased my level of comfort with people different from myself,” and "My study-abroad experience has improved my problem-solving skills.”

*General personal change.* A measure of personal change (α = .83), created by the author for the purposes of the current study, contained 5 items which participants answered on a 7-point Likert scale (0 = *not at all*, 6 = *extremely*). Sample items are “Studying abroad has changed who I am,” and “I am a different person now than I was when I left the United States.”

*Worldliness*. The worldliness scale (α = .95), created by the author for the purposes of the current study, contained three items and measured how worldly students felt before and after the study-abroad experience. Participants responded on a 7-point

Likert scale (0 = *not at all*, 6 = *extremely*) to items such as "I see myself as worldly," and "I have a good understanding of the world from personal experience."

*Living arrangements and social behaviors while abroad.* Participants described their living arrangements, such as in a dorm with other students from the United States, or with a family from the host country. They also specified their host country's language and the language in which their courses were taught. Descriptive statistics on the number of students in English-speaking and non-English-speaking countries are presented in the Appendix. Descriptive statistics on the number of students living with host families or with other American students are also presented in the Appendix.

Participants used a 7-point Likert scale (0 = *not at all*, 6 = *extremely often*) to answer 21 items about how often they engaged in certain types of behaviors. Participants reported how often they had conversations with people from the host country and with people from the United States, as well as how often they spoke in the language of the host country. Participants indicated how much time they spent on the phone or e-mailing friends and family back in the United States. Participants reported the number of friendships with people from the host country and the United States. Participants also indicated how often they ate the traditional food of their host country, and how often they ate at chain restaurants from the United States, such as McDonald's. Participants reported how often they attended cultural events, such as visiting museums, going to local parades, or going to festivities celebrating a holiday in the host country. Finally, participants indicated how often they traveled inside and outside the host country.

*Scale Construction*

*Identification with the host country and identification with the United States*. The author and her adviser generated 10 items meant to capture the concepts of identification with the host country, and identification with the United States, while abroad. 162 students completed the 10 items while abroad. A principal-axis factor analysis with oblique rotation on all 10 items indicated three factors, which had intercorrelations of -.25 and .22. Because of the low correlation between factors, the principal-axis factor analysis was repeated with orthogonal (varimax) rotation on all 10 items. The analysis extracted three factors, whose respective eigenvalues were 3.37, 2.24, and 1.01. After rotation, the eigenvalues accounted for 24.38%, 20.37%, and 7.80% of the total variance, respectively.

Several pieces of information suggested that a two-factor solution and seven-item scale may be more meaningful. The third factor had a relatively low eigenvalue, and the scree plot showed that the slope of eigenvalues was most pronounced only for the first two factors. Communalities for three items were low, indicating the items did not load highly onto any factor. In the rotated factor matrix, these three items also loaded simultaneously on more than one factor.

Once the three items were removed, a principal-axis factor analysis was repeated with orthogonal (varimax) rotation on seven items. The analysis extracted two factors —a 4-item "identification with the host country" factor ($\alpha = .84$) and a 3-item "identification with the United States" factor ($\alpha = .80$). Their eigenvalues were 3.01 and 1.90. After

rotation, the factors accounted for 32.98% and 25.78% of the total variance, respectively. Table 2.1 presents each item's loading on each factor.

Table 2.1: Factor Loadings of Each Identification Scale Item

| Item | Factor 1 loading | Factor 2 Loading |
|---|---|---|
| Over time, I've come to think of myself more as a member of my host country. | . 62 | .04 |
| It's important for me to blend in with members of my host country, not stand out as a person from the United States. | .79 | -.21 |
| It's important for me to think of myself as a member of my host country. | .88 | -.02 |
| I feel complimented when people mistake me for a member of my host country. | .70 | -.22 |
| It's important for me to stand out as a person from the United States in my host country. | -.15 | .77 |
| I feel complimented when people recognize me as a person from the United States. | -.04 | .76 |
| It's important for me to think of myself as a person from the United States in my host country. | -.07 | .73 |

*Note*. These factor loadings are based on a principal-axis factor analysis.
Factor 1 = Identification with the host country. Factor 2 = Identification with the United States.

*Self-verification abroad.* The author and her adviser created eight items to capture the existence and importance of self-verification abroad. 162 students completed the items while abroad. A principal-axis factor analysis with oblique rotation on all 8 items indicated two factors, which were correlated at .46. Because of the moderate correlation between factors, oblique rotation was considered a more suitable choice than orthogonal rotation. The eigenvalues of the two factors were 4.69 and 1.81, and they accounted for 55.67% and 19.44% of the variance, respectively. The first factor, "existence of self-verification," contained four items ($\alpha = .91$). The second factor, "importance of self-verification," contained four items ($\alpha = .93$). Table 2.2 presents each item's loading on each factor.

Table 2.2: Factor Loadings of Each Self-Verification Scale Item

| Item | Factor 1 loading | Factor 2 Loading |
|---|---|---|
| People from my host country treat me in a way that makes me feel understood. | .85 | .03 |
| People from my host country make me feel that I can be myself. | .80 | -.08 |
| People from my host country understand who I am. | .87 | .09 |
| People from my host country see me as I see myself. | .88 | .02 |
| It is important that people from my host country treat me in a way that makes me feel understood. | .08 | .82 |
| It is important to me that people from my host country make me feel that I can be myself. | .02 | .81 |
| It is important to me that people from my host country understand who I am. | -.02 | .93 |
| It is important that people from my host country see me as I see myself. | -.06 | .92 |

*Note*. These factor loadings are based on a principal-axis factor analysis.
Factor 1 =Existence of self-verification in the host country. Factor 2 = Importance of self-verification in the host country.

*Social behaviors while abroad.* Factor analyses conducted on the behavioral variables indicated no overarching factor structure. A principal-axis factor analysis with orthogonal (varimax) rotation was performed on 13 behavior items. After rotation, a four factor solution accounted for just 57.17% of the variance. Certain items loaded on more than one factor at the same time. Communalities for three items were low, indicating the items did not load highly onto any factor. Most important, the set of behaviors in each factor did not readily lend itself to interpretation. Therefore, individual behavior items rather than multiple-item scales were used in most analyses.

*Procedure*

Measures were given four time points. At time 1, study-abroad students had not yet left the United States. Study-abroad students were in the host country for 2 weeks at time 2, for 8 weeks at time 3, and for 12 weeks at time 4. Information about when and how often each measure was administered is in the Appendix.

Questionnaires were pre-tested for length and time required before they were sent to participants. Each survey for the study-abroad group took 10 to 25 minutes to

complete; the surveys at times 1 and 4 were the longest, and the survey at time 3 was the shortest. Control-group participants completed their measures approximately 12 weeks after the beginning of the fall 2007 semester. The control group's survey took 15 to 20 minutes to complete.

## Chapter 3: Results

Given the exploratory nature of this investigation, a large number of analyses was carried out. Two goals were kept in mind during experimental analyses. To balance between power and the risk of Type I error, I set a *p* level of .05 for each analysis. Due to the large number of analyses, it is possible that some findings are the result of Type I error and should thus be replicated before firm conclusions can be drawn.

*Research Question 1: Do students who study abroad experience change in identities, beliefs, and feelings?*

Before presenting the results, it is important to properly classify the variables of interest. In the current study, self-liking, self-competence, and worldliness were considered *identities* because these variables are clearly beliefs about the self. Ethnocentrism, personal growth, and personal change were considered *beliefs* (or meta-identities) because these variables are views that people have about self-views (i.e., personal growth and personal change represent people's beliefs about whether they have grown or changed and ethnocentrism is a belief about how people view themselves in relation to others). Life satisfaction was considered a *feeling* because it represents people's overall level of pleasure or displeasure with life.

Paired-samples *t*-tests were performed to examine change on variables measured at two different data points. Satisfaction with life, worldliness, self-esteem, and ethnocentrism were assessed before students left the United States, and again after students had been abroad for 12 weeks. As shown in Figure 3.1, students were significantly higher in life satisfaction 12 weeks into the study-abroad experience (*M* =

27.89, *SD* = 5.34) than they were before leaving the United States (*M* = 25.65, *SD* = 6.05), *t*(70) = 3.94, *p* < .001. As shown in Figure 3.2, students were also significantly higher in worldliness after 12 weeks abroad (*M* = 3.73, *SD* = 1.34) than they were before leaving the United States (*M* = 3.21, *SD* = 1.49), *t*(67) = 3.29, *p* = .002.

Figure 3.1: Satisfaction with life before and during study abroad

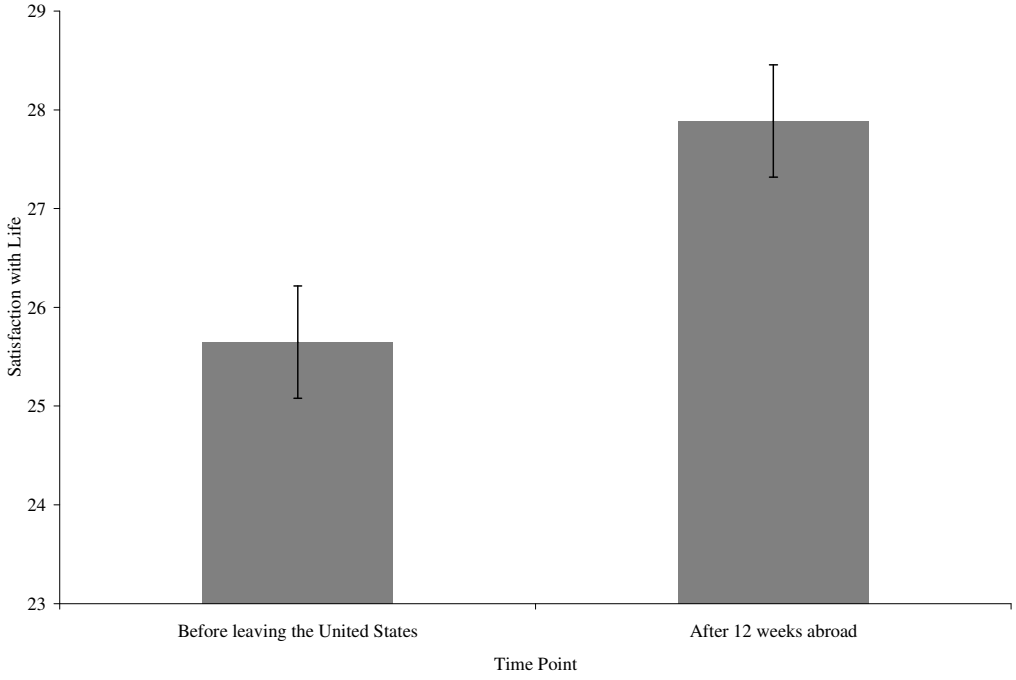
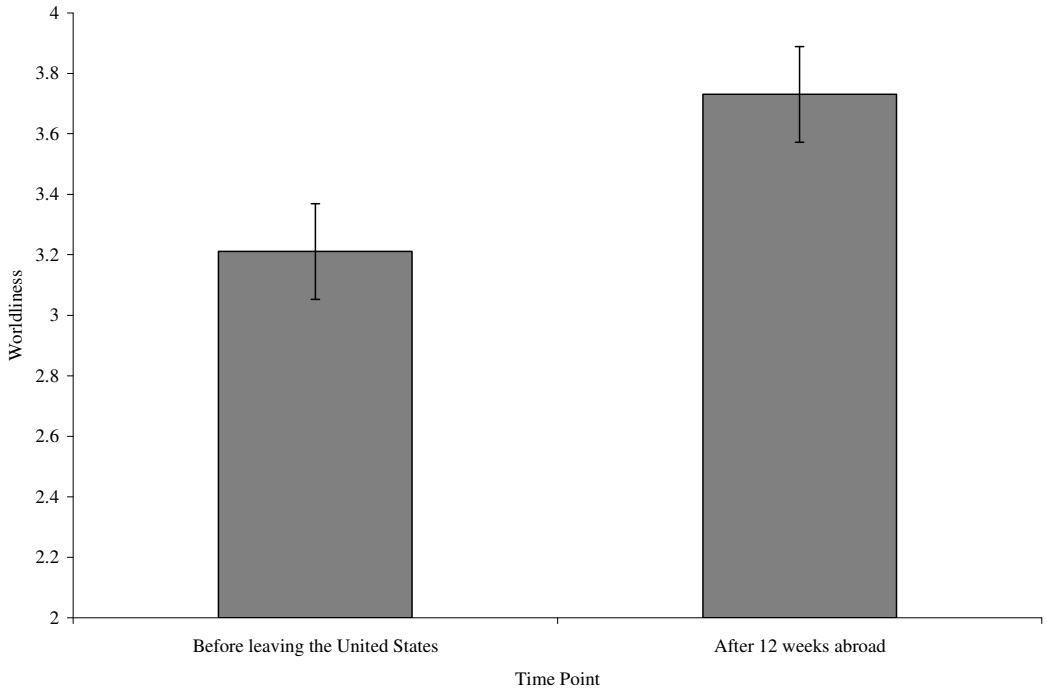
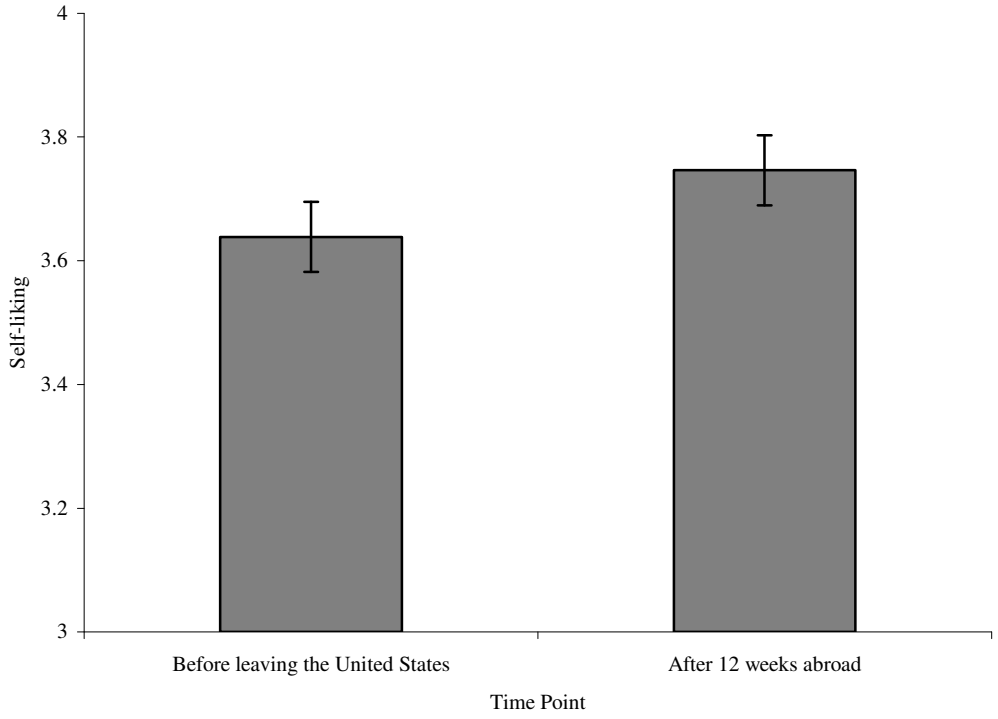


Figure 3.2: Worldliness before and during study abroad




Self-esteem is divided into components of self-liking and self-competence. As shown in Figure 3.3, students were marginally higher in self-liking 12 weeks into the study-abroad experience ($M = 3.75$, $SD = 0.79$) than they were before leaving the United States ($M = 3.64$, $SD = 0.84$), $t(64) = 1.90$, $p = .06$. Students did not change in self-competence across time, $t(63) = 1.28$, $p = .21$.

Figure 3.3: Self-liking before and during study abroad




Identification with the host country and identification with the United States were assessed when students had been abroad for 2 weeks, and again when they had been abroad for 12 weeks. Across time, students did not show significant changes in identification with the host country ($t(60) = .82$, $p = .41$) or identification with the United States ($t(61) = .78$, $p = .44$).

Results for ethnocentrism were more nuanced. Overall, ethnocentrism increased across time; paired-sample *t*-tests showed that students reported higher ethnocentrism scores after 12 weeks abroad ($M = 27.33$, $SD = 7.80$) than before leaving the United States ($M = 25.97$, $SD = 6.85$), $t(62) = 2.29$, $p = .03$. These findings were contrary to predictions. The findings were also unlike other research, which has found that students abroad tend to increase in levels of cross-cultural sensitivity (Anderson et al., 2006) and

develop a more objective perception of the United States in relation to other cultures (Carlson & Widaman, 1988). These unexpected findings indicated that other variables may possibly influence students' levels of ethnocentrism after 12 weeks abroad.

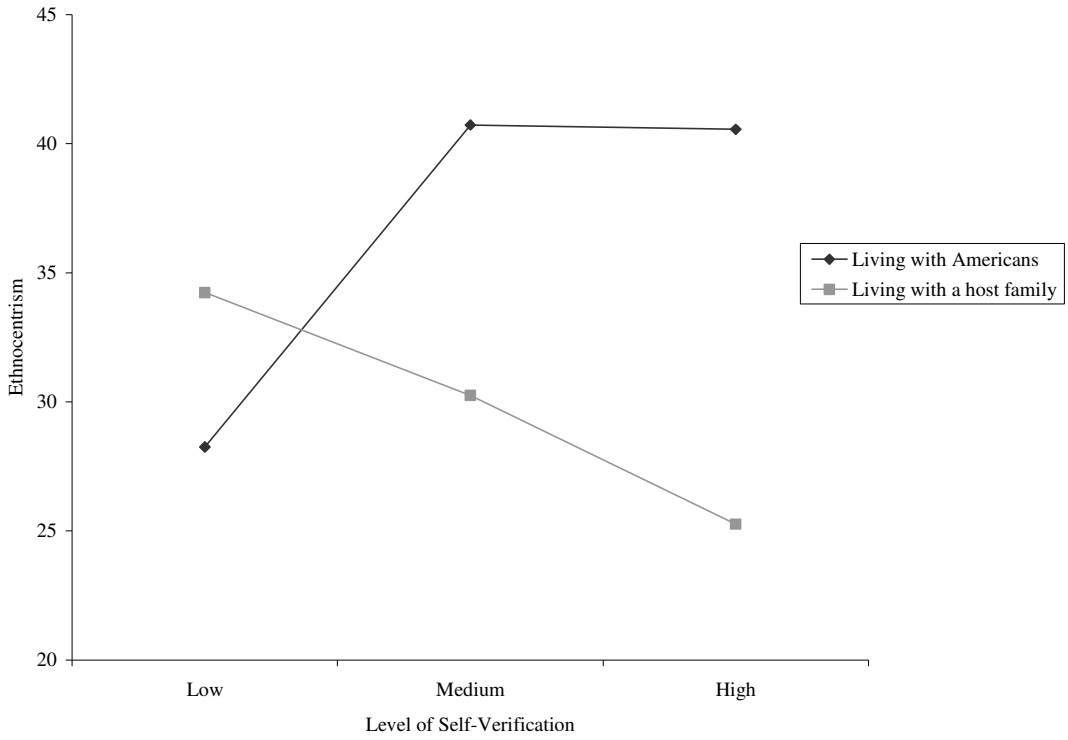
To investigate other variables, independent-samples *t*-tests were first performed. Students in English-speaking countries ($M = 27.08$, $SD = 8.37$) and students in non-English-speaking countries ($M = 25.08$, $SD = 6.94$) did not differ on ethnocentrism scores before leaving the United States ($t(116) = 1.24$, $p = .22$). Students in English-speaking countries ($M = 29.71$, $SD = 8.40$) and students in non-English-speaking countries ($M = 26.61$, $SD = 7.45$) also did not differ on ethnocentrism after spending 12 weeks abroad, $t(63) = 1.34$, $p = .18$. The only difference that emerged was that students who were not yet abroad ($M = 24.65$, $SD = 7.90$) were significantly lower in ethnocentrism than students abroad in English-speaking countries ($M = 29.71$, $SD = 8.40$), $t(96) = 2.20$, $p = .03$.

A series of one-way ANOVAs indicated that students going to different countries did not differ in ethnocentrism levels before they left the United States, $F(1, 96) = 1.06$, $p = .40$. However, students going to different countries differed marginally on ethnocentrism after 12 weeks in the host country, $F(1, 45) = 1.66$, $p = .07$. A table of post-hoc tests for countries with four or more participants who completed the survey after 12 weeks abroad is presented in the Appendix. These tests should be interpreted extremely cautiously because they are based on a small number of participants.

Second, a set of hierarchical linear regression analyses was carried out. Closer examination of the data revealed a more complicated picture, such that living

arrangements interacted marginally with the amount of self-verification participants received in the host culture to predict level of ethnocentrism, $R^2\Delta F(1, 26) = 3.26$, $p = .08$. As shown in Figure 3.4, the ethnocentrism of participants living with host families decreased as the level of self-verification they received increased. For participants living with Americans, ethnocentrism increased as self-verification increased, then leveled off at moderate levels of self-verification. This interaction should be interpreted with caution because it was marginally significant and did not emerge for satisfaction with life, worldliness, or self-liking. Students who received the most verification from their host families also did not change in ethnocentrism across time, $t(4) = -.06$, $p = .95$, but the small sample size prevents meaningful interpretation of this finding.

Figure 3.4: Ethnocentrism as a function of living arrangements and self-verification by host culture




Measures of overall personal growth and change were administered when students had been abroad for 12 weeks. Personal growth and personal change seemed to be fairly widespread and pronounced. The mean personal growth score was 3.97 ($SD$ = 0.74) on a 5-point scale, and the mean personal change score was 3.88 ($SD$ = 1.09) on a 6-point scale. Histograms for the personal growth and personal change variables are presented in the Appendix.

After students in the study-abroad group had been abroad for 12 weeks, they were compared to students who were planning to study abroad the following semester but who had spent the current semester at the University of Texas at Austin. Independent-samples $t$-tests were conducted to compare the abroad group with the control group. After 12

weeks, students abroad had higher satisfaction with life ($t(159) = 3.06$, $p = .003$), self-competence ($t(153) = 2.93$, $p = .004$), personal change ($t(156) = 2.48$, $p = .01$), and marginally higher personal growth ($t(153) = 1.68$, $p = .09$). No group differences emerged for self-liking or worldliness, $p$s > .17. Details are presented in Table 3.1.

Table 3.1: Mean Scores as a Function of Study-Abroad Status

| Measure | Abroad | | Not Yet Abroad | |
|---|---|---|---|---|
| | *M* | *SD* | *M* | *SD* |
| Satisfaction with life | 28.01** | 5.33 | 25.22 | 6.11 |
| Self-liking | 3.77 | .78 | 3.76 | .83 |
| Self-competence | 3.69** | .58 | 3.42 | .58 |
| Personal growth | 3.97† | .74 | 3.74 | .93 |
| Personal change | 3.88* | 1.09 | 3.39 | 1.37 |
| Worldliness | 3.73 | 1.32 | 3.45 | 1.29 |

*Note.* Means marked with an asterisk in the "Abroad" group are significantly different from means in the same row for the "Not Yet Abroad" group.
†$p < .09$. *$p < .05$. **$p < .01$.

Some inconsistency exists when comparing the longitudinal data to the comparisons with the control group. Students abroad, for example, increased across time in worldliness and self-liking. However, the abroad group was not significantly different from the control group in worldliness or self-liking. Moreover, students abroad did not increase in self-competence across time, but the abroad group was significantly higher in self-competence than the control group. Nothing in the data can readily explain these inconsistencies.

*Research Question 2: Which personal characteristics predict change in identity, beliefs, and feelings during study abroad?*

Students completed all measures of personal characteristics before leaving the United States. After spending 12 weeks abroad, they completed measures of personal growth, personal change, identification with the host country, and identification with the United States. Linear regression analyses were carried out to determine if personal characteristics predicted change abroad.

As shown in Table 3.2, extraversion, agreeableness, conscientiousness, openness to experience, the reappraisal facet of emotion regulation, and self-competence all positively predicted personal growth abroad, *p*s < .05. Self-liking marginally and positively predicted personal growth abroad, $p < .06$. The suppression facet of emotion regulation, as well as ethnocentrism, negatively predicted personal growth, *p*s < .05. Emotional stability and need for cognitive closure did not predict personal growth, *p*s > .32.

Table 3.2: Summary of Regression Analyses for Personal Characteristics Predicting Personal Growth during Study Abroad

| Variable | *df* | *B* | *SE B* | *B* |
|---|---|---|---|---|
| Extraversion | 69 | .13 | .06 | .27* |
| Agreeableness | 68 | .18 | .08 | .28* |
| Conscientiousness | 67 | .21 | .10 | .25* |
| Emotional stability | 69 | .06 | .07 | .11 |
| Openness to experience | 67 | .41 | .18 | .28* |
| Need for cognitive closure | 67 | -.11 | .11 | -.12 |
| Emotion regulation - reappraisal | 66 | .24 | .10 | .29* |
| Emotion regulation - suppression | 66 | -.16 | .07 | -.26* |
| Ethnocentrism | 65 | -.04 | .01 | -.38** |
| Self-competence | 65 | .45 | .14 | .37** |
| Self-liking | 65 | .22 | .11 | .24† |

†$p < .06$. *$p < .05$. **$p < .01$.

As shown in Table 3.3, agreeableness and openness to experience positively predicted personal change, *p*s < .001. Extraversion and self-competence marginally and positively predicted personal change, *p*s < .08. Ethnocentrism negatively predicted personal change, $p < .01$. Conscientiousness, emotional stability, need for cognitive closure, both facets of emotion regulation, and self-liking did not predict personal change, *p*s > .14.

Table 3.3: Summary of Regression Analyses for Personal Characteristics Predicting Personal Change during Study Abroad

| Variable | *df* | *B* | *SE B* | *B* |
|---|---|---|---|---|
| Extraversion | 71 | .15 | .08 | .21† |
| Agreeableness | 70 | .40 | .11 | .40*** |
| Conscientiousness | 69 | .21 | .15 | .17 |
| Emotional stability | 71 | -.03 | .10 | -.04 |
| Openness to experience | 69 | .95 | .24 | .43*** |
| Need for cognitive closure | 69 | .01 | .17 | .004 |
| Emotion regulation - reappraisal | 68 | .17 | .15 | .15 |
| Emotion regulation - suppression | 68 | -.17 | .11 | -.18 |
| Ethnocentrism | 67 | -.06 | .02 | -.37** |
| Self-competence | 67 | .40 | .21 | .23† |
| Self-liking | 67 | .06 | .17 | .04 |

†$p < .08$. *$p < .05$. **$p < .01$. ***$p < .001$.

As shown in Table 3.4, agreeableness and self-competence positively predicted identification with the host country after 12 weeks abroad, *p*s < .05. Openness to experience marginally and positively predicted identification with the host country, $p = .05$. Extraversion, conscientiousness, emotional stability, need for cognitive closure, the two facets of emotion regulation, ethnocentrism, and self-liking did not predict identification with the host country, *p*s > .12. No personal variables predicted identification with the United States after 12 weeks abroad, *p*s > .19. In addition, identification with the host country was correlated with personal growth ($r(70) = .26$, $p = .03$) and marginally correlated with personal change ($r(70) = .23$, $p = .06$). Thus, anything correlated with identification with the host country was positively associated with some personal growth and change as well.

Table 3.4: Summary of Regression Analyses for Personal Characteristics Predicting Identification with the Host Country after 12 Weeks Abroad

| Variable | *df* | *B* | *SE B* | *B* |
|---|---|---|---|---|
| Extraversion | 68 | .08 | .12 | .08 |
| Agreeableness | 68 | .32 | .16 | .24* |
| Conscientiousness | 66 | .32 | .20 | .19 |
| Emotional stability | 68 | -.14 | .14 | -.12 |
| Openness to experience | 66 | .71 | .36 | .24† |
| Need for cognitive closure | 66 | .01 | .24 | .003 |
| Emotion regulation - reappraisal | 65 | .15 | .21 | .09 |
| Emotion regulation - suppression | 65 | -.11 | .16 | -.09 |
| Ethnocentrism | 64 | -.04 | .03 | -.18 |
| Self-competence | 64 | .76 | .30 | .31* |
| Self-liking | 64 | .16 | .23 | .09 |

†$p < .06$. *$p < .05$.

The last personal variable, language competence, did not predict personal growth, personal change, identification with the host country, or identification with the United States after 12 weeks abroad, *p*s > .13. However, language competence was correlated with various behaviors after 12 weeks abroad: talking in the language of the host country ($r(29) = .37$, $p = .05$), having friends from the host country, ($r(30) = .47$, $p = .008$), and having friends from the United States, ($r(30) = -.45$, $p = .01$). Two possible explanations may account for the lack of association between identity change and language competence. First, a relatively low number of participants allowed access to language grades. Second, a restriction of range in grades was evident. The average language class grade-point-average (GPA) of the students in the sample was 3.63; only one student reported a language GPA under 3.00.

The final step was to examine if any personal characteristics predicted the significant changes across time observed for worldliness and satisfaction with life. Therefore, hierarchical linear regression analyses were performed. As shown in Table

3.5, need for cognitive closure negatively predicted satisfaction with life after 12 weeks abroad, even while controlling for life satisfaction levels before leaving the United States ($p = .04$).

Table 3.5: Summary of Hierarchical Regression Analysis for Variables Predicting Satisfaction with Life after 12 Weeks Abroad ($N = 69$)

| Variable | *B* | *SE B* | *β* |
|---|---|---|---|
| Step 1 | | | |
| Satisfaction with life before leaving the United States | .57 | .08 | .65*** |
| Step 2 | | | |
| Satisfaction with life before leaving the United States | .54 | .08 | .61*** |
| Need for cognitive closure | -1.32 | .64 | -.19* |

Note: $R^2 = .42$ for Step 1; $\Delta R^2 = .04$ for Step 2 ($p$s < .05).
*$p < .05$. ***$p < .001$.

Extraversion, agreeableness, openness to experience, and ethnocentrism each predicted worldliness after 12 weeks abroad, even while controlling for levels of worldliness before leaving the United States ($p$s < .05). The reappraisal facet of emotion regulation marginally predicted worldliness after 12 weeks abroad, even while controlling for levels of worldliness before leaving the United States ($p < .06$). These results are presented in Table 3.6.[1]

Table 3.6: Summary of Hierarchical Regression Analyses for Variables Predicting Worldliness after 12 Weeks Abroad ($N = 66$)

| Variable | *B* | *SE B* | *β* |
|---|---|---|---|
| Step 1 | | | |
| Worldliness before leaving the United States | .53 | .09 | .58*** |
| Step 2 | | | |
| Worldliness before leaving the United States | .44 | .09 | .48*** |
| Extraversion | .27 | .09 | .32** |
| Step 1 | | | |
| Worldliness before leaving the United States | .56 | .09 | .60*** |
| Step 2 | | | |
| Worldliness before leaving the United States | .57 | .09 | .62*** |
| Agreeableness | .27 | .12 | .22* |
| Step 1 | | | |
| Worldliness before leaving the United States | .52 | .09 | .57*** |
| Step 2 | | | |
| Worldliness before leaving the United States | .45 | .09 | .50*** |
| Openness to experience | .76 | .27 | .28** |
| Step 1 | | | |
| Worldliness before leaving the United States | .52 | .09 | .58*** |
| Step 2 | | | |
| Worldliness before leaving the United States | .52 | .09 | .58*** |
| Emotion regulation – reappraisal | .29 | .15 | .19† |
| Step 1 | | | |
| Worldliness before leaving the United States | .52 | .09 | .57*** |
| Step 2 | | | |
| Worldliness before leaving the United States | .56 | .09 | .61*** |
| Ethnocentrism | -.06 | .02 | -.28** |

Note: For the extraversion regression, $R^2 = .34$ for Step 1; $\Delta R^2 = .09$ for Step 2 ($ps < .01$).
For the agreeableness regression, $R^2 = .36$ for Step 1; $\Delta R^2 = .05$ for Step 2 ($ps < .05$).
For the openness to experience regression, $R^2 = .33$ for Step 1; $\Delta R^2 = .08$ for Step 2 ($ps < .01$).
For the emotion regulation - reappraisal regression, $R^2 = .33$ for Step 1; $\Delta R^2 = .04$ for Step 2 ($ps < .06$).
For the ethnocentrism regression, $R^2 = .33$ for Step 1; $\Delta R^2 = .08$ for Step 2 ($ps < .01$).
†$p < .06$. *$p < .05$. **$p < .01$. ***$p < .00$.

*Research Question 3: Which situational variables or behaviors correlate with change in identity, beliefs, and feelings during study abroad?*

*Country choice and language of courses abroad.* Bivariate correlation analyses were performed for all findings in this section. Simply living in a country where the language was not English was marginally correlated with identification with the host country after 2 weeks abroad ($r(60) = .25$, $p = .06$) and after 12 weeks abroad ($r(59) = .24$, $p = .07$). Taking courses in the language of the host country, instead of in English, was positively correlated with identification with the host country after 2 weeks abroad ($r(45) = .45$, $p = .002$) and after 12 weeks abroad ($r(43) = .40$, $p = .008$); moreover, taking courses in the language of the host country was negatively correlated with identification with the United States after 2 weeks abroad ($r(46) = -.40$, $p = .006$) and after 12 weeks abroad ($r(43) = -.33$, $p = .03$). Living in a host country where the language was not English was not associated with personal growth ($r(59) = -.19$, $p = .15$) or personal change ($r(60) = .13$, $p = .32$). Likewise, taking courses in the language of the host country was not associated with personal growth ($r(43) = .09$, $p = .55$) or personal change ($r(44) = .07$, $p = .65$).

*Behaviors after 2 weeks abroad.* Table 3.7 presents correlations between behaviors after 2 weeks abroad and concurrent identification with the host country. Table 3.8 presents correlations between behaviors after 2 weeks abroad and concurrent identification with the United States.

Table 3.7: Correlations between Behaviors after 2 Weeks Abroad and Concurrent Identification with the Host Country

| Behavior | *N* | *r* |
|---|---|---|
| Conversations with people from | | |
| the host country | 80 | .25* |
| Texas | 78 | -.28* |
| other parts of the United States | 79 | -.08 |
| other countries | 80 | -.17 |
| Talking in the language of the host country | 63 | .22† |
| Having friends from | | |
| the host country | 80 | .32** |
| the United States | 80 | .06 |
| other countries | 80 | -.09 |
| Eating food from | | |
| the host country | 79 | .33** |
| the United States | 79 | -.26* |
| Attending cultural events | 79 | .24* |
| Traveling | | |
| within the host country | 79 | -.01 |
| to other countries | 79 | -.23* |

†$p < .08$. *$p < .05$. **$p < .01$.

Table 3.8 : Correlations between Behaviors after 2 Weeks Abroad and Concurrent Identification with the United States

| Behavior | *N* | *r* |
|---|---|---|
| Conversations with people from | | |
| the host country | 81 | .01 |
| Texas | 79 | .07 |
| other parts of the United States | 80 | -.05 |
| other countries | 81 | -.13 |
| Talking in the language of the host country | 64 | -.28* |
| Having friends from | | |
| the host country | 81 | -.08 |
| the United States | 81 | .02 |
| other countries | 81 | .0001 |
| Eating food from | | |
| the host country | 80 | -.23* |
| the United States | 80 | .29** |
| Attending cultural events | 80 | .07 |
| Traveling | | |
| within the host country | 80 | .22† |
| to other countries | 80 | -.02 |

†$p = .05$. *$p < .05$. **$p < .01$.

*Behaviors after 12 weeks abroad*. Table 3.9 presents correlations between behaviors after 12 weeks abroad and concurrent identification with the host country. Table 3.10 presents correlations between behaviors after 12 weeks abroad and concurrent identification with the United States. Personal growth was correlated only with traveling within the host country, $r(70) = .27$, $p = .02$. Personal change was not correlated with any behaviors after 12 weeks abroad, $p$s > .11.

Table 3.9: Correlations between Behaviors after 12 Weeks Abroad and Concurrent Identification with the Host Country

| Behavior | *N* | *R* |
|---|---|---|
| Conversations with people from | | |
| the host country | 70 | .25* |
| Texas | 70 | -.25* |
| other parts of the United States | 70 | -.004 |
| other countries | 70 | -.04 |
| Talking in the language of the host country | 51 | .26† |
| Having friends from | | |
| the host country | 70 | .08 |
| the United States | 70 | .21 |
| other countries | 70 | -.19 |
| Eating food from | | |
| the host country | 70 | .33** |
| the United States | 70 | -.44*** |
| Attending cultural events | 70 | .26* |
| Traveling | | |
| within the host country | 70 | .01 |
| to other countries | 70 | -.12 |

†$p < .07$. *$p < .05$. **$p < .01$. **$p < .001$.

Table 3.10: Correlations between Behaviors after 12 Weeks Abroad and Concurrent Identification with the United States

| Behavior | *N* | *r* |
|---|---|---|
| Conversations with people from | | |
| the host country | 70 | -.20† |
| Texas | 70 | .22† |
| other parts of the United States | 70 | -.04 |
| other countries | 70 | .07 |
| Talking in the language of the host country | 51 | -.15 |
| Having friends from | | |
| the host country | 70 | -.05 |
| the United States | 70 | -.01 |
| other countries | 70 | .13 |
| Eating food from | | |
| the host country | 70 | -.12 |
| the United States | 70 | .27* |
| Attending cultural events | 70 | -.12 |
| Traveling | | |
| within the host country | 70 | .13 |
| to other countries | 70 | .23† |

†$p < .10$. *$p < .05$.

*Average behavior across 12 weeks.* To get an idea of how students' overall behaviors across the semester affected their identification with the United States after 12 weeks abroad, each students' set of three scores was averaged across time for each behavior. This way, it was possible to see how students average behavior—after 2, 8, and 12 weeks abroad—correlated with identification after 12 weeks abroad. Another benefit is that averages across time tend to be more stable and informative than single behaviors. Table 3.11 presents the correlations between averaged behaviors and identification with the host country after 12 weeks abroad; Table 3.12 presents the correlations between averaged behaviors and identification with the United States after 12 weeks abroad. Personal growth was correlated with traveling within the host country ($r(58) = .32$, $p =$

.02) and marginally correlated with going to cultural events (r(58) = .26, $p$ = .05). Again, personal change was not correlated with any averaged behaviors, $p$s > .14.

Table 3.11: Correlations between Behaviors in the Host Country Averaged across Time and Identification with the Host Country after 12 Weeks Abroad

| Behavior | *N* | *R* |
|---|---|---|
| Conversations with people from | | |
| the host country | 57 | .34** |
| Texas | 56 | -.23† |
| other parts of the United States | 56 | -.05 |
| other countries | 58 | -.01 |
| Talking in the language of the host country | 42 | .36* |
| Having friends from | | |
| the host country | 58 | .16 |
| the United States | 58 | .17 |
| other countries | 57 | -.10 |
| Eating food from | | |
| the host country | 58 | .26† |
| the United States | 58 | -.51*** |
| Attending cultural events | 58 | .33* |
| Traveling | | |
| within the host country | 58 | .05 |
| to other countries | 58 | -.21 |

†$p$ < .09. *$p$ < .05. **$p$ < .01. ***$p$ < .001.

Table 3.12: Correlations between Behaviors in the Host Country Averaged across Time and Identification with the United States after 12 Weeks Abroad

| Behavior | *N* | *R* |
|---|---|---|
| Conversations with people from | | |
| the host country | 57 | -.24† |
| Texas | 56 | .16 |
| other parts of the United States | 56 | -.16 |
| other countries | 58 | .03 |
| Talking in the language of the host country | 42 | -.38* |
| Having friends from | | |
| the host country | 58 | -.12 |
| the United States | 58 | -.06 |
| other countries | 57 | .10 |
| Eating food from | | |
| the host country | 58 | -.18 |
| the United States | 58 | .24† |
| Attending cultural events | 58 | -.06 |
| Traveling | | |
| within the host country | 58 | .17 |
| to other countries | 58 | .31* |

†$p < .08$. *$p < .05$.

*Predictors of increases in satisfaction with life and worldliness.* When controlling for satisfaction with life before leaving the United States, life satisfaction after 12 weeks abroad was not predicted by concurrent behaviors, nor by average levels of behaviors across the semester, *p*s > .10. After 12 weeks abroad, going to cultural events ($\beta = .20$, $t(66) = 2.06$, $p = .04$) and traveling in the host country ($\beta = .26$, $t(66) = 2.71$, $p = .009$) predicted levels of concurrent worldliness, after controlling for levels of worldliness before leaving the United States. The average level of attendance at cultural events across the semester also predicted worldliness after 12 weeks abroad, $\beta = .24$, $t(54) = 2.27$, $p = .03$.

*Research Question 4: Are students' living arrangements abroad associated with change in identities, beliefs, and feelings?*

Students' living arrangements can be categorized and grouped in a number of ways. Previous research (e.g., Stephenson, 1999; Dwyer 2004) has outlined various benefits and experiences students gain by living with a host family. Therefore, analyses about living arrangements were performed two ways. First, students living with host families were compared with students living with other Americans. Second, for a more conservative test, students living with host families were compared with students not living with host families. The second test is more conservative because it compares students living with host families to those in virtually any other housing situation, whether it be living with students from many countries, living with Americans, or even living with students from the host country. Independent-samples *t*-tests were carried out to look for group differences.

*Identity change after 2 weeks abroad.* Students living with host families ($M$ = 3.81, $SD$ = 1.20) had higher identification with the host country after 2 weeks abroad than students living with Americans, ($M$ = 2.62, $SD$ = 1.51), $t(32) = 2.56$, $p = .02$. Students in these groups did not differ on identification with the United States, $t(32) = .16$, $p = .87$. Furthermore, students living with host families ($M$ = 3.81, $SD$ = 1.20) had higher identification with the host country after 2 weeks abroad than students in all other living arrangements ($M$ = 2.82, $SD$ = 1.55), $t(75) = 2.65$, $p = .01$. Again, these groups did not differ on levels of identification with the United States, $t(76) = .67$, $p = .51$.

*Identity change after 12 weeks abroad.* Students living with host families ($M$ = 3.87, $SD$ = 1.19) had higher identification with the host country after 12 weeks abroad than students living with Americans ($M$ = 2.54, $SD$ = 1.78), $t(29) = 2.49$, $p = .02$. No group differences were found for identification with the United States, $t(29) = 1.11$, $p = .28$. Students living with host families ($M$ = 3.87, $SD$ = 1.19) had higher identification with the host country after 12 weeks abroad than students in other living arrangements ($M$ = 3.05, $SD$ = 1.54), $t(61) = 2.06$, $p = .04$. No group differences were found for identification with the United States, $t(61) = 1.29$, $p = .20$.

Students living with host families were not different than students living with Americans on personal growth ($t(29) = .16$, $p = .87$) or personal change ($t(30) = .08$, $p = .94$). Likewise, students living with host families were not different than students in other living arrangements on personal growth ($t(61) = .08$, $p = .93$) or personal change ($t(62) = .65$, $p = .52$).

Incidentally, students living with host families ($M$ = 29.35, $SD$ = 4.92) were significantly higher in satisfaction with life after 12 weeks abroad than students living with Americans ($M$ = 25.00, $SD$ = 7.36), $t(30) = 2.01$, $p = .05$. This difference appears to be the result of living with host families versus with Americans; a linear regression showed that living with a host family (versus with Americans) was a marginally significant predictor of satisfaction with life after 12 weeks abroad, even after controlling for satisfaction with life before leaving the United States, ($\beta = .24$, $t(29) = 1.92$, $p = .07$). Students living with host families did not have higher life satisfaction after 12 weeks abroad when compared to students in all other living arrangements, $t(62) = 1.14$, $p = .26$.

No differences were found between students living with host families and those living with Americans on the following measures taken after 12 weeks abroad: overall satisfaction abroad, satisfaction during the past week, worldliness, ethnocentrism, self-liking, or self-competence, *p*s > .12. The same pattern was true when students living with host families were compared with those in all other living arrangements, *p*s > .17.

*Predictors of increases in satisfaction with life and worldliness*. Because results from research question 1 showed overall gains in satisfaction with life and worldliness across time, living arrangements were investigated as predictors of these gains. As noted above, results of a hierarchical linear regression showed that living arrangements marginally predicted satisfaction with life after 12 weeks abroad, even after controlling for original levels of satisfaction with life. This finding occurred only when comparing students living with host families to those living with Americans ($\beta = .24$, $t(29) = 1.92$, $p = .07$). When controlling for worldliness levels before leaving the United States, living arrangements did not predict worldliness levels after 12 weeks abroad, *p*s > .36.

*Living arrangements and behavior*. Results from research question 3 indicated that certain behaviors were associated with identity change; therefore, it was also appropriate to determine if students in different living arrangements exhibited different levels of behaviors associated with identity change. After 2 weeks abroad, students living with host families ($M = 5.50$, $SD = 1.06$) ate food from the host country more often than students living with other Americans ($M = 4.46$, $SD = 1.81$), $t(33) = 2.15$, $p = .04$. Students living with host families ($M = .23$, $SD = .53$) also ate less food from the United States than did students living with other Americans ($M = .77$, $SD = .83$), $t(33) = 2.36$, $p$

= .02. The same patterns were found when comparing students who lived with host families to students in other living arrangements.

After 12 weeks abroad, students who lived with host families ($M$ = 1.95, $SD$ = 2.07) had fewer conversations with people from Texas than did students living with Americans ($M$ = 3.96, $SD$ = 2.39), $t(29) = 2.49$, $p = .02$. Students with host families ($M$ = 4.68, $SD$ = 1.34) also had more conversations with people from the host country than did students living with Americans ($M$ = 3.50, $SD$ = 1.78), $t(29) = 2.11$, $p = .04$. Students in host families ($M$ = 3.00, $SD$ = .75) spoke more in the language of the host country than students living with Americans ($M$ = 2.13, $SD$ = .99), $t(25) = 2.53$, $p = .02$. As far as eating habits were concerned, students in host families ($M$ = 5.63, $SD$ = .60) ate marginally more food from the host country than did students living with Americans ($M$ = 4.92, $SD$ = 1.51), $t(29) = 1.87$, $p = .07$. Students with host families ($M$ = .37, $SD$ = .68) also ate less food from the United States than did students living with Americans ($M$ = 1.33, $SD$ = 1.23), $t(29) = 2.81$, $p = .009$. The same pattern was true when comparing students living with host families to those in other living arrangements, with the exception that the groups did not differ in conversations with people from Texas ($t(61) = 1.10$, $p = .28$), and there were only marginal differences between the groups on conversations with people from the host country ($t(61) = 1.70$, $p = .09$) and talking in the language of the host country ($t(45) = 1.81$, $p = .08$).

Using behaviors averaged across the semester abroad, students with host families ($M$ = 3.16, $SD$ = .86) spoke more in the language of the host country than students living with Americans ($M$ = 2.04, $SD$ = .92), $t(21) = 2.89$, $p = .009$. Students with host families

($M$ = .24, $SD$ = .37) also ate less food from the United States than did students living with Americans ($M$ = .94, $SD$ = .87), $t(24) = 2.80$, $p = .01$. The same findings emerged when comparing students with host families to those in other living arrangements, except that students in host families ($M$ = 5.67, $SD$ = .44) also ate more food from the host country than students in other living arrangements ($M$ = 4.30, $SD$ = 1.32), $t(53) = 3.90$, $p < .001$.

Findings that were not directly related to the central research questions are presented in the Appendix.

Footnote

[1]All regression analyses were checked to make sure they met the assumptions required for an ordinary least squares regression. A violation of normality in the residuals was suggested by significant Shapiro-Wilk values on the following analyses: regressing personal growth separately onto openness, extraversion, emotion regulation, ethnocentrism, need for cognitive closure, self-liking, self-competence, and agreeableness; and regressing satisfaction with life after 12 weeks abroad simultaneously onto satisfaction with life before leaving the United States and need for cognitive closure. However, further examination indicated that all P-P plots of the residuals were normal. Furthermore, the values for skew and kurtosis were under 3 in all cases. Thus, the majority of measures of normality showed that residuals met the criteria for normality. It will be prudent, however, to conduct future studies to confirm that results are not statistical artifacts.

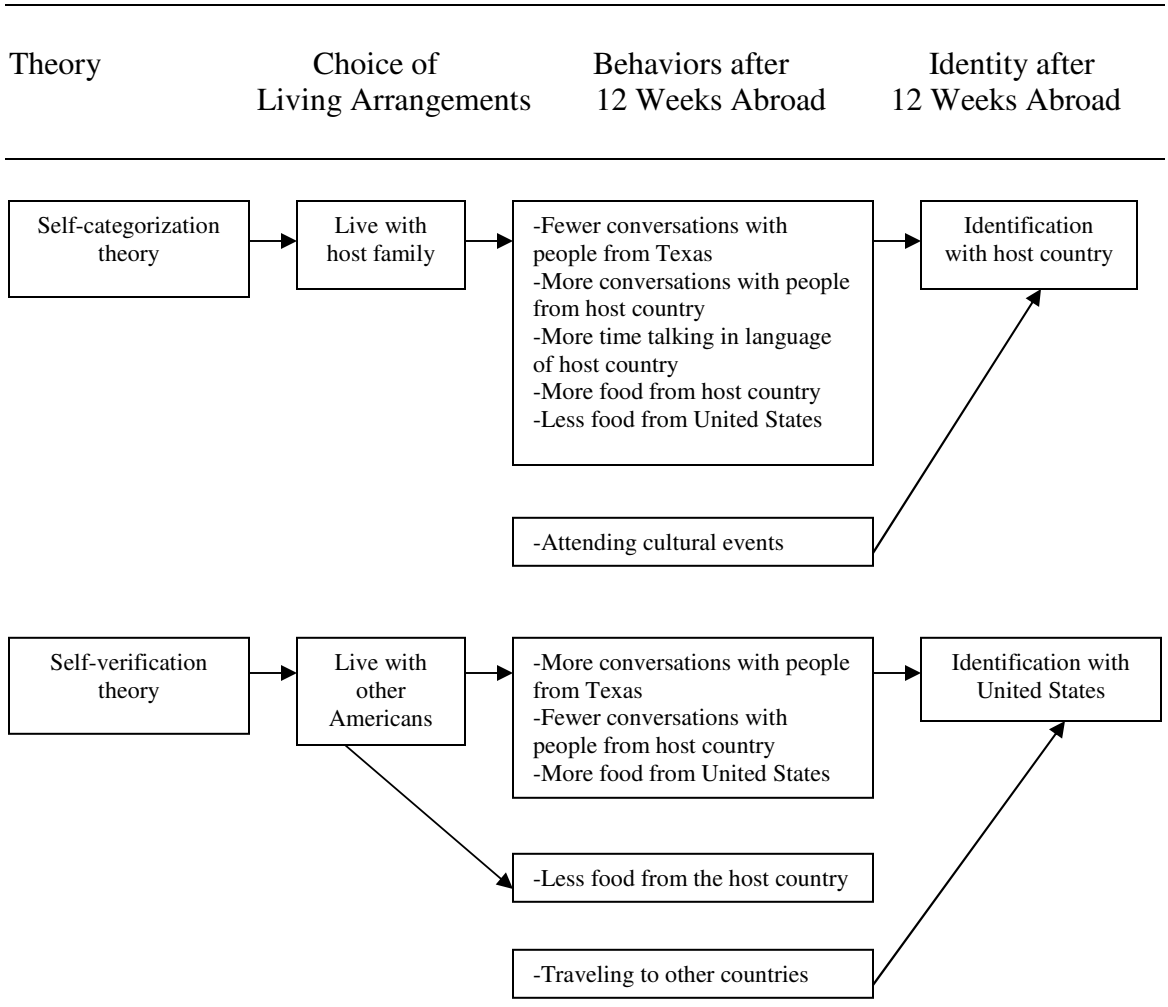
## Chapter 4: Discussion

The discussion contains three sections. First, a conceptual model is presented to provide a parsimonious explanation of the findings and their link with self-categorization theory and self-verification theory. A summary of results not incorporated in the model is discussed in the Appendix. Second, limitations of the study are described. Third, goals for future research are outlined.

*Conceptual model and relationship of findings to theory.* The findings can most parsimoniously be linked to the theories of identity (specifically, self-categorization and self-verification) by presenting a conceptual model in which each theory predicts different choices in living arrangements, behaviors while abroad, and identity outcomes. The model is presented in Figure 4.1.

The first column presents each theory. Each theory predicts different choices in living arrangements, different behaviors, and different identity outcomes. Beginning in the choice of living arrangements column, each link in the model is statistically supported by data ($ps < .09$) Thus, living with a host family is correlated with enacting certain behaviors, which are then correlated with identification with the host country after 12 weeks abroad. Living with other Americans is correlated with enacting certain behaviors, which are then correlated with identification with the United States after 12 weeks abroad.

Figure 4.1: Theoretical model of identity change during study abroad




Note. Arrows represent a relationship between the two variables that is significant or approaches significance, ps < .09

In terms of more specific findings, the increases in satisfaction with life, worldliness, and the marginal increases in self-liking across time can be seen as partial support for self-categorization theory, which posits that identity changes based on the goals of the person and the characteristics of the situation (Turner & Onorato, 1999). In self-categorization theory, identity change is common, expected, and often adaptive. Self-

categorization theory was supported by the findings that students showed change while abroad.

However, other findings cast doubt on aspects of self-categorization theory. For example, the theory's principle of functional antagonism states that any identity that is activated will inhibit other competing identities. Contrary to this principle was the finding that students living with host families had higher identification with the host country after 12 weeks than students living with Americans (Ms = 3.87 and 2.54, respectively, $t(29) = 2.49$, $p = .02$); these groups however, did not differ on levels of identification with the United States ($t(29) = 1.11$, $p = .28$). This finding shows that identification with the host country can occur without students giving up their identification with the United States. Kashima and Loh's (2006) findings seem to document the same phenomenon: Asian students studying in Australia saw themselves as worthy members of their Australian university, and also as members of their home countries. Thus, contrary to the principle of functional antagonism, embracing one identity does not require relinquishing another one.

Some support for self-verification theory (Swann et al., 2007; Swann, 1997, 1983) can be found in the fact that the magnitude of the significant changes students reported across the semester was modest. The increase in satisfaction with life was 2.24 points on a scale with a range of 35 points. The increase is approximately 1/3 of a standard deviation (Diener et al., 1985). The increase in worldliness was 0.52 points on a 7-point scale, again about 1/3 of a standard deviation. Thus, there was not evidence that students were experiencing vast changes or completely erasing their previous identities. Students

were most likely making an effort to retain at least some portions of their original identities, in order to benefit from the coherence and meaning that identity provides (Swann et al., 2002). The findings regarding the openness to experience also supported self-verification theory (Swann et al., 2007; Swann, 1997, 1983). That is, seeing oneself as open to experience predicted personal growth, personal change, and identification with the host country after 12 weeks abroad. Openness to experience also predicted worldliness levels after 12 weeks abroad, even while controlling for previous worldliness levels. In this case, people who saw themselves as open actually did experience more change, so their experiences were consistent with their self-views.

Identity negotiation theory (Swann, 1987; Swann & Bosson, in press), which allows for overall stability and some change, appears to offer the most appropriate framework for understanding the findings. Consider the evidence of changes in ethnocentrism. Students living with other Americans while abroad presumably received self-verifying feedback on their existing identities as Americans. Interpersonal feedback that was difficult to dismiss possibly led to a strengthening of the American identity, which could explain the increase in ethnocentrism. Students living with host families, on the other hand, most likely received self-verifying feedback on newer identities, such as new member of the family, or as new member of the host country. These students were perhaps more cut off from their previous identities as Americans; they also probably did not receive the identity confirming feedback they needed to maintain their identities as Americans. This process could explain the decrease in ethnocentrism found in students who lived with host families and who felt moderate to high levels of self-verification.

*Limitations.* The current study had four primary limitations. First, a large number of findings were correlational; thus, causality cannot be assumed. The longitudinal nature of the study, as well as the control group, address the limitation but do not eliminate it.

Second, the sample in the current study may not have been representative of the overall population of University of Texas at Austin students who spent a semester abroad in spring or fall 2007. All students spending a semester abroad in spring or fall 2007 were invited to participate, but participation was not required. Entries into a raffle for cash prizes or iPod shuffles were given in order to increase participation. However, only 29.67% of the population of students going abroad completed the first phase of the questionnaire, which was administered before students left the United States. Once students were abroad, participation continued to drop. 19.67% of the full population completed the survey after 2 weeks abroad. Participation declined to 18.83% of the population for the survey administered after 8 weeks abroad, and decreased to 16.50% of the population for the survey given after 12 weeks abroad.

Because participation in all four phases of the survey involved a concerted and steady effort across the semester, it is possible that the participants who completed all four phases were different from students who completed fewer phases or did not participate at all. Future studies will need to correct this limitation. Requiring participation would yield much more reliable data; however, it may not be ethically or logistically feasible. Improving prizes or developing more incentives for students to participate is another way to improve the representativeness of the sample. Another benefit of increasing the number of people who participate is that future studies can

investigate if factors such as gender, ethnicity, country abroad, or specific programs abroad lead to different levels and types of identity change.

The third limitation concerned the logistics of survey administration. The large variability in students' study-abroad plans and arrival dates was difficult to anticipate. It was assumed that most students did not leave for study abroad more than a few weeks before the start of classes abroad. This assumption was true for most students; however, certain students had unconventional travel plans or preparatory courses that required them to be in the host country several weeks before the official start of classes abroad. Eight students who left the United States especially early did not receive the first phase of the questionnaire until they were already abroad. The first phase was designed to be a baseline, and the intention was for it to be completed before students left the United States. While this miscalculation may seem considerable, two pieces of information suggest that the integrity of the data was not compromised. First and most important, the results did not change when these students were removed from the analyses. This outcome suggests that students who completed the first phase of the study while they were abroad probably did not change appreciably before doing so. If they had changed, it would have been harder to detect changes across time, from the first to the final survey administration. Second, the number of affected students was quite small. Logistical difficulties will be avoided in future studies by contacting students about the survey earlier.

The fourth limitation of the study involves the lack of control over the conditions under which students completed the questionnaire. One of the strengths of online data

collection for study-abroad research is that students around the world can participate; however, a weakness of online data collection is that the strict laboratory setting, where conditions are nearly identical for every participant, is forfeited. It is probable that students completing the questionnaire across the semester were affected by widely divergent settings, mood states, and other events during the survey completion. However, this limitation does not justify eliminating the online data collection method. Earlier paper-and-pencil studies were limited because measures were given some time after students returned from the study-abroad experience (e.g., Drews et al.,1996; Carlson & Widaman, 1988; Orahood et al., 2004; Rohrlich & Martin, 1991), instead of during the experience itself. Other studies (e.g., Searle & Ward, 1990; Kashima & Loh, 2006) were given while students were abroad, but at only one time point. It is reasonable to assume that these studies may have had higher levels of experimental control, but the data they yielded may have had their own problems with scope and reliability.

Despite its drawbacks, online data collection seems to be an especially appropriate match for students abroad. Gosling et al. (2004) found that findings from web-based studies are consistent with findings from other more traditional methods, and that an online versus paper-and-pencil format did not significantly affect the nature or quality of survey results. The same study presented evidence that participants taking online questionnaires were generally not less motivated than participants using other questionnaire methods.

*Goals for future research*. In addition to addressing the limitations addressed above, one goal for future research is to replicate the current study's findings to minimize

the risk of Type I error. In addition, I hope to explore further one of finding that was not predicted, the failure of personal variables to predict choice of living arrangements, behaviors, and identity. There are four possible reasons why personal characteristics did not predict living arrangements in the current sample. First, the relatively low number of participants may have made it difficult to find associations between personal characteristics and living arrangements. Second, students abroad may have been quite high on key personal characteristics, leading to a restriction of range which made finding correlations more difficult. Third, students' living arrangements may have been restricted based upon the programs they choose. Students may have chosen study-abroad programs based primarily on location and the certainty that coursework abroad would count toward University of Texas at Austin requirements. Other characteristics, such as living arrangements, may have been less important to students. Therefore, students may have found themselves in programs with limited options for living arrangements. Some programs for example, may not have offered the chance to live with a host family, or may not have offered the chance to live with other Americans. These students may have ended up in certain housing arrangements not because they chose them, but by default. Fourth, results from the current study may have been correct, and personal characteristics may genuinely not predict choice of housing arrangements.

In addition, future studies can further investigate personal characteristics by increasing the number of participants and recruiting a more diverse sample to minimize the problem of restriction of range. Collecting information about more personal characteristics is also recommended. In future studies, more detailed information will be

gathered about the types of housing arrangements available for each program abroad. Students who chose study-abroad programs with only one housing option will be excluded from relevant analyses about personal characteristics, housing, and behaviors. If future studies do not find evidence that personal characteristics influence choices of housing arrangements, it may simply be the case that although choice of housing abroad is somewhat random, housing arrangements influence behaviors and identity change. Thus, evidence for a somewhat powerful social psychological phenomenon could emerge – that students' housing choice may produce important behavioral and identity outcomes, and these outcomes would not be confined to students with certain personal characteristics. This discovery would have important social and practical implications for improvements in study-abroad housing choices and programs.

## Chapter 5: Conclusion and Implications

The main goal of this research was to investigate the psychological ramifications of studying abroad. Specifically, the traits and behaviors associated with identity change were examined. Exploring the study-abroad experience is fertile ground for the field of social psychology because it offers a look into important identity processes which normally take much longer to unfold. Because identity is, by most definitions (e.g., Swann et al., 2007, 2002; Markus, 1990), stable, short-term empirical studies of identity have been uncommon and challenging to achieve. Some research on identity has been mainly theoretical (e.g., Marcia, 1966; Bosma & Kunnen, 2001), and other research has asked participants about identity change that had already happened (e.g., Kroger and Green, 1996), rather than studying the change as it occurs. In certain cases, studying identity change requires an extremely long time commitment. Cramer (2004), for example, studied adult identity over a period of more than two decades. Research on students abroad, however, can offer an efficient way to gain enlightening information about identity. In addition, understanding the study-abroad process itself is necessary for an industry that currently sends almost a quarter million students abroad per year (CALSAFP, 2005).

The current study contributed to identity research and study-abroad research by finding evidence that identity change did occur doing study abroad and certain personal characteristics were associated with identity change. Findings also showed that social behaviors and living arrangements were linked with various identity outcomes. While

future research is necessary, this dissertation represents an important step in understanding students who are in the midst of a unique and transformative experience.

# Appendix

*Schedule of Measures*

Table A.1. Schedule of Measures for Participants Studying Abroad

| Measure | Time 1: Before departure | Time 2: 2 weeks in host country | Time 3: 8 weeks in host country | Time 4: 12 weeks in host country |
|---|---|---|---|---|
| Demographics | √ | | | |
| Openness | √ | | | |
| Need for cognitive closure | √ | | | |
| Emotion regulation | √ | | | |
| Satisfaction with life | √ | | | √ |
| Self-esteem | √ | | | √ |
| Personality | √ | | | |
| Worldliness | √ | | | √ |
| Ethnocentrism | √ | | | √ |
| Reasons for study abroad | √ | | | |
| Person-culture fit | | √ | | √ |
| Self-verification in the host country | | √ | | √ |
| Identification with the host country and with the United States | | √ | | √ |
| Live conversations with people from the host country or United States | | √ | √ | √ |
| Eating foods from the host country or United States | | √ | √ | √ |
| Attendance at cultural events | | √ | √ | √ |
| Travel within or outside the host country | | √ | √ | √ |
| Satisfaction with study-abroad experience during the past week | | √ | √ | √ |
| Personal growth | | | | √ |
| Personal change | | | | √ |
| Permission for language grades | | | | √ |

Note. A check mark (√) indicates participants completed the measure at that time point.

*Descriptive Statistics*

Table A.2: Frequency of Participants Studying Abroad in Each Country

| Country | Number of Participants | Percentage of Participants |
|---|---|---|
| Argentina | 9 | 6.82 |
| Australia | 8 | 6.06 |
| Austria | 5 | 3.79 |
| Brazil | 3 | 2.27 |
| Chile | 4 | 3.03 |
| China | 8 | 6.06 |
| Denmark | 1 | 0.76 |
| Dominican Republic | 1 | 0.76 |
| England | 17 | 12.88 |
| France | 11 | 8.33 |
| Germany | 4 | 3.03 |
| Hong Kong | 3 | 2.27 |
| India | 1 | 0.76 |
| Ireland | 1 | 0.76 |
| Israel | 1 | 0.76 |
| Italy | 5 | 3.79 |
| Japan | 8 | 6.06 |
| Mexico | 4 | 3.03 |
| Netherlands | 1 | 0.76 |
| Peru | 1 | 0.76 |
| Scotland | 3 | 2.27 |
| Singapore | 3 | 2.27 |
| Spain | 24 | 18.18 |
| Sweden | 2 | 1.52 |
| Switzerland | 1 | 0.76 |
| Thailand | 1 | 0.76 |
| Turkey | 2 | 1.52 |
| Total | 132 | 100.00 |

Note. Numbers and percentages are from the first data collection point, when students were still in the United States.

Table A.3: Frequency of Participants Studying Abroad in English-Speaking and non-English-Speaking Countries

| Country Type | Number of Participants | Percentage of Participants |
|---|---|---|
| English speaking | 29 | 21.97 |
| Non-English speaking | 97 | 73.48 |

Note. Countries in the "Other" category include Hong Kong and Singapore, where English is an official language but Asian languages are widely spoken.

Table A.4: Frequency of Participants Living with Host Families and with Other American Students

| Housing Type | Number of Participants | Percentage of Participants |
|---|---|---|
| Host family | 22 | 62.86 |
| American students | 13 | 37.14 |

Note. Numbers and percentages are from the second data collection point, when students had been abroad for two weeks. Students not included in this table chose other living arrangements.

*Intercorrelations and Factor Analysis*

Table A.5: Intercorrelations of Measures Administered in the Current Study

| Measure | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|---|
| 1. Need for cognitive closure | — | -.19 | .11 | -.14 | -.16 | -.08 | .37** | -.42** | -.30* | -.40** |
| 2. Emotion regulation – reappraisal | | — | -.15 | .16 | .18 | .21 | .03 | .25* | .31** | .33** |
| .3. Emotion regulation – suppression | | | — | -.27* | -.40** | -.23 | -.003 | -.03 | -.12 | -.26* |
| 4. Openness (BFI) | | | | — | .13 | .40** | .11 | .03 | .04 | -.04 |
| 5. Extraversion | | | | | — | -.05 | -.04 | -.07 | .24* | .27* |
| 6. Agreeableness | | | | | | — | .26* | .11 | .08 | .04 |
| 7. Conscientiousness | | | | | | | — | .04 | .02 | .10 |
| 8. Emotional stability | | | | | | | | — | .21 | .43** |
| 9. Satisfaction with life | | | | | | | | | — | .59** |
| 10. Self-liking | | | | | | | | | | — |

| Measure | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|---|
| 11. Self-competence | -.18 | .36** | -.16 | .20 | .28* | .12 | .29* | .24* | .46** | .61** |
| 12. Ethnocentrism | .17 | -.33** | .23 | -.30* | -.04 | -.47** | -.12 | -.07 | .008 | -.09 |
| 13. Person-culture fit | -.17 | .09 | -.16 | .14 | .20 | .02 | -.07 | .07 | .19 | .31* |
| 14. Worldliness | -.05 | .19 | -.16 | .42** | .45** | .21 | .10 | .04 | .16 | .18 |
| 15. Personal change | .004 | .15 | -.18 | .43** | .23 | .24* | .29* | -.13 | .17 | .05 |
| 16. Personal growth | -.12 | .29* | -.27* | .28* | .22 | .24** | .24 | -.05 | .31** | .18 |
| 17. Self-verification in the host country | -.002 | -.04 | -.002 | -.07 | .15 | -.008 | .21 | .03 | .19 | .32** |
| 18. Identification with the host country | .003 | .09 | -.09 | .24 | .03 | .15 | .23 | -.07 | .25* | .06 |
| 19. Identification with the United States | -.12 | .12 | .08 | -.16 | .12 | -.02 | -.04 | -.03 | .12 | .12 |

| Measure | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 |
|---|---|---|---|---|---|---|---|---|---|
| 11. Self-competence | — | -.09 | .26* | .38** | .26* | .29* | .08 | .19 | .10 |
| 12. Ethnocentrism | | — | -.28* | -.05 | -.27* | -.30* | -.20 | -.31* | .25* |
| 13. Person-culture fit | | | — | .24* | .29* | .37** | .52** | .49** | -.19 |
| 14. Worldliness | | | | — | .32** | .23 | .06 | .21 | .17 |
| 15. Personal change | | | | | — | .63** | .22 | .23 | .00002 |
| 16. Personal growth | | | | | | — | .23 | .26* | .05 |
| 17. Self-verification in the host country | | | | | | | — | .38** | -.08 |
| 18. Identification with the host country | | | | | | | | — | -.45** |
| 19. Identification with the United States | | | | | | | | | — |

*$p < .05$. **$p < .01$.

Factor analyses were conducted on the measures in the correlation matrix. A principal-axis factor analysis with orthogonal (varimax) rotation conducted on the 19 measures indicated no overarching factor structure. After rotation, a 6-factor solution accounted for just 55.27% of the variance. Certain measures loaded on more than one factor at the same time. Communalities for three measures were low, indicating the measures did not load highly onto any factor. The set of measures in each factor did not readily lend itself to interpretation. Therefore, individual measures rather than factors were used in all analyses.

*Post-Hoc Tests*

Table A.6: Significant Post-Hoc Tests for Ethnocentrism after 12 Weeks Abroad

| Country A | Country B | Mean Difference (A – B) |
|---|---|---|
| Argentina | China | 9.83* |
| | Mexico | 16.75** |
| | Spain | 9.33* |
| Australia | Mexico | 14.50** |
| England | Mexico | 12.92** |

*$p < .05$. **$p < .01$.
Note. Values above reflect Fisher's LSD post-hoc paired comparisons. Comparisons were conducted only for countries with four or more study-abroad participants who completed the survey after 12 weeks abroad.

*Review of Study-Abroad Literature Not Directly Applicable to the Current Study*

Studies on the language outcomes of study abroad are not often simple or one-sided. In the area of language, study-abroad students in Spain showed greater gains in second-language oral proficiency and fluency than students learning Spanish in a United States classroom (Segalowitz, Freed, Collentine, Lafford, Lazar, & Diaz-Campos, 2004); the same study showed that the study-abroad group did not have significantly higher grammar abilities. Dewey (2004) compared United States students learning Japanese in

Japan with students in a Japanese immersion language class in the United States. Students learning in Japan reported that they were more confident reading in Japanese than students in the United States. The two groups did not, however, differ on scores on free-recall and vocabulary tests. Collentine and Freed (2004) asserted that the study abroad context and the domestic context each carried unique benefits in second language acquisition. Study-abroad students showed greater improvements in vocabulary and narrative ability, while excellent pronunciation was attained in either context. Tokowicz, Michael, & Kroll (2004) found that students studying abroad were more able to translate words from the first to the second language only if they had higher working memory capacity. In Diaz-Campos (2004), gains in phonetic ability could be independent of the learning context. Specifically, predictors of phonetic ability were years of formal language instruction, use of Spanish before the semester, and use of Spanish outside the classroom. Diáz-Campos (2004) suggested that study abroad may lead to second language gains only insofar as it gives students more opportunity to practice the language. If the opportunity to practice the second language were available frequently in a domestic context, equal language gains in both groups could be expected.

*Review of Findings Not Directly Linked to Main Research Questions*

*General personal growth and personal change*. The mean personal growth score was 3.97 (*SD* = 0.74) on a 5-point scale, and the mean personal change score was 3.88 (*SD* = 1.09) on a 6-point scale. Personal growth scores in the current sample were comparable to Ingraham and Peterson's (2004) sample of study-abroad students, who reported a mean personal growth score of 3.78.As the histograms in Figures A.1 and A.2

illustrate, personal growth and personal change during study abroad were quite prevalent. 95.77% of students reported levels of personal growth higher than the midpoint of the scale, and 73.97% of students reported levels of personal change higher than the midpoint of the scale.

Figure A.1: Histogram of personal growth scores

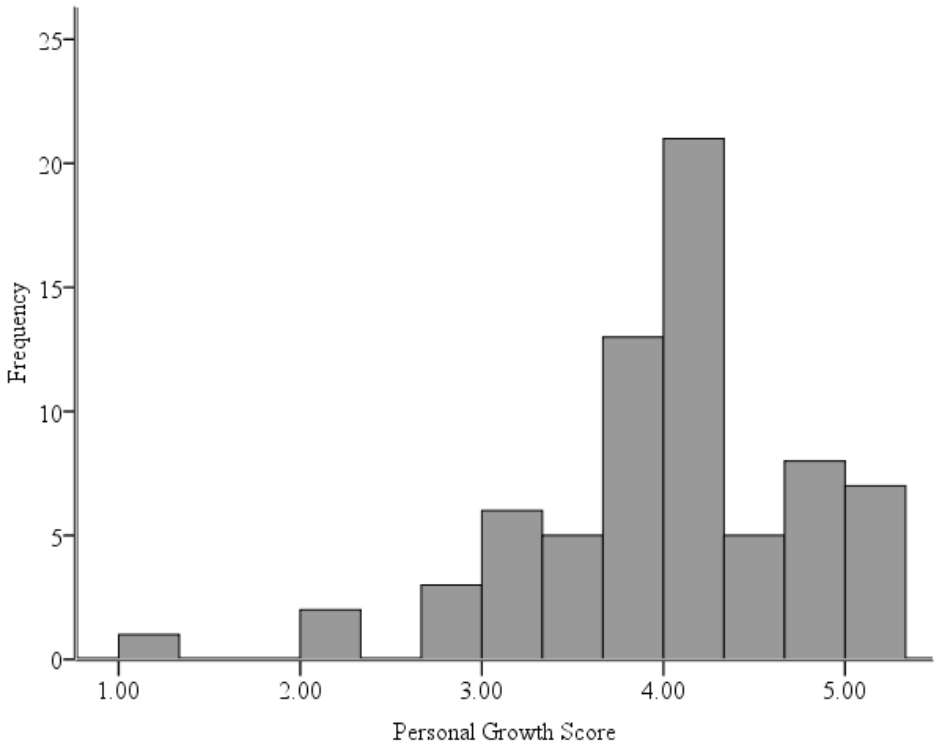
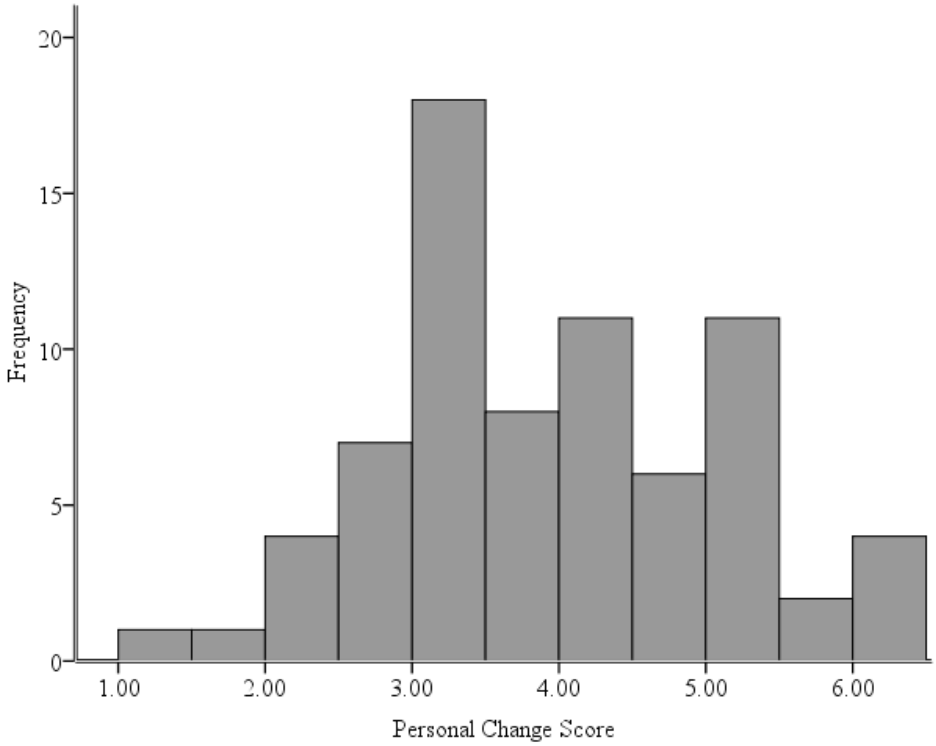


Figure A.2: Histogram of personal change scores




*Reasons for study abroad.* There is evidence that goals and hopes for study abroad can be influential during the study-abroad experience. Kitsantas (2004) found that students' goals and reasons for studying abroad influenced how much their cultural skills and global understanding improved. The current study sought to investigate if having various reasons for study abroad was associated with various identity outcomes after 12 weeks abroad. Reasons for study abroad were measured before students left the United States. Factor analyses indicated that items did not cluster in a meaningful way, so correlational analyses were conducted on each item. Table A.7 presents the correlations for reasons for study abroad and personal growth. Table A.8 presents the correlations for reasons for study abroad and personal change. Except for marginal correlations with

learning a new language ($r(68) = .23$, $p = .07$) and exploring family/cultural heritage ($r(67) = .23$, $p = .06$), reasons for going abroad did not correlate with identification with the host country after 12 weeks abroad. Going abroad because of parental influence was the only reason associated with identification with the United States after 12 weeks abroad, $r(68) = .26$, $p = .03$.

Table A.7: Correlations between Reasons for Going Abroad and Personal Growth

| Reason for going abroad | *N* | *r* |
|---|---|---|
| Make new friends | 69 | .26* |
| Have fun | 69 | .31* |
| Learn a new language | 69 | .13 |
| Explore a new culture | 69 | .28* |
| Live in a new place | 69 | .46*** |
| Get away from home | 69 | .26* |
| Because of parental influence | 69 | .01 |
| Study topics not available at UT | 69 | .08 |
| Do something different | 69 | .44*** |
| Learn about myself | 69 | .28* |
| Be independent | 69 | .51*** |
| Escape a negative situation | 69 | .16 |
| Explore family/cultural heritage | 68 | .07 |
| Travel to locations other than the one where I'll be studying | 68 | .39** |
| Find out how other countries perceive people from the United States | 69 | .15 |

*$p < .05$. **$p < .01$. ***$p < .001$.

Table A.8: Correlations between Reasons for Going Abroad and Personal Change

| Reason for going abroad | *N* | *r* |
|---|---|---|
| Make new friends | 71 | .14 |
| Have fun | 71 | .23† |
| Learn a new language | 71 | -.10 |
| Explore a new culture | 71 | .30* |
| Live in a new place | 71 | .39** |
| Get away from home | 71 | .36** |
| Because of parental influence | 71 | -.06 |
| Study topics not available at UT | 71 | .07 |
| Do something different | 71 | .36** |
| Learn about myself | 71 | .22† |
| Be independent | 71 | .39** |
| Escape a negative situation | 71 | .19 |
| Explore family/cultural heritage | 70 | .05 |
| Travel to locations other than the one where I'll be studying | 70 | .34** |
| Find out how other countries perceive people from the United States | 71 | .32** |

†$p < .07$. *$p < .05$. **$p < .01$.

*Person-culture fit*. Table A.9 presents the correlations between person-culture fit after 12 weeks abroad and various concurrent outcomes. Because of the correlational nature of the data, it is not possible to specify whether a high person-culture fit contributed to concurrent positive outcomes, or if the positive outcomes made the students feel a stronger sense of person-culture fit. Another possibility is that a third variable accounted for the associations.

Table A.9: Correlations between Person-Culture Fit after 12 Weeks Abroad and Concurrent Measures

| Measure | *N* | *r* |
|---|---|---|
| Satisfaction with life | 71 | .19 |
| Self-liking | 69 | .31* |
| Self-competence | 68 | .26* |
| Personal growth | 71 | .37** |
| Personal change | 71 | .29* |
| Ethnocentrism | 68 | -.28* |
| Identification with the host country | 70 | .49*** |
| Identification with the United States | 70 | -.19 |

*$p < .05$. **$p < .01$. ***$p < .001$.

*Satisfaction with the study-abroad experience.* Personal change ($r(68) = .28$, $p = .02$), personal growth ($r(68) = .51$, $p < .001$), and being satisfied with the host family ($r(19) = .51$, $p = .03$) were correlated with overall satisfaction with the study-abroad experience. No other personal variables were significantly correlated with satisfaction with study abroad, $p$s > .11. Averaged satisfaction abroad (at 2, 8 and 12 weeks) was also correlated with attending cultural events ($r(55) = .36$, $p = .007$) and traveling within the host country ($r(55) = .30$, $p = .03$).

*Summary of Results Not Explained by Model*. The current study's findings suggest that students abroad experienced change in identities, beliefs, and feelings. Across time, students showed increases in satisfaction with life and worldliness, as well as marginal increases in self-liking. The majority of students reported relatively high levels of personal growth and personal change.

Students living with other Americans increased in ethnocentrism across time if they received medium or high levels of self-verification. Students living with a host

family decreased in ethnocentrism across time to the extent that they felt self-verified. This interaction between living arrangements and level of self-verification on ethnocentrism was marginal, so replication is especially important. Presumably, students living with Americans were being verified on their identities as Americans, leading to higher ethnocentrism. Students living with host families, on the other hand, likely received verification as "new host country members" or "one of the family," from their host family members, leading to lower ethnocentrism.

As a baseline comparison group, students abroad were compared with students who planned to go abroad the subsequent semester, but who had spent the target semester at the home university. Group differences emerged on several variables. Students abroad reported higher satisfaction with life, self-competence, and personal change than students at the home university; students abroad were also marginally higher on personal growth.

Personal characteristics predicted the extent of identity change while abroad. Extraversion, agreeableness, conscientiousness, openness to experience, the reappraisal facet of emotion regulation, and self-competence all positively predicted personal growth abroad. Self-liking marginally and positively predicted personal growth abroad. Ethnocentrism and the suppression facet of emotion regulation negatively predicted personal growth abroad. Agreeableness and openness to experience positively predicted personal change abroad. Extraversion and self-competence marginally and positively predicted personal change. Ethnocentrism negatively predicted personal change.

Other findings about personal characteristics showed that agreeableness and self-competence positively predicted identification with the host country after 12 weeks

abroad. Openness to experience marginally and positively predicted identification with the host country. No personal variables predicted identification with the United States after 12 weeks abroad. Language competence did not predict personal growth, personal change, or identification with the host country; however, it was positively correlated with having friends from the host country and negatively correlated with having friends from the United States.

Need for cognitive closure negatively predicted satisfaction with life after 12 weeks abroad, after controlling for satisfaction with life before leaving the United States. Extraversion, agreeableness, and openness to experience each positively predicted worldliness after 12 weeks abroad, after controlling for worldliness before leaving the United States; the same was true for ethnocentrism, except that the relationship was negative. The reappraisal facet of emotion regulation marginally and positively predicted worldliness after 12 weeks abroad, after controlling for worldliness before leaving the United States.

In addition to personal characteristics, situational variables were important in identity change. Merely studying in a host country where the language was not English was marginally correlated with identification with the host country after 2 and 12 weeks abroad. Choosing to take courses in the language of the host country, instead of in English, was positively correlated with identification with the host country after 2 and 12 weeks abroad; the same variable was negatively correlated with identification with the United States after 2 and 12 weeks abroad.

There was also evidence that certain behaviors abroad led to identity change even when controlling for existing levels of personal traits. Going to cultural events and traveling in the host country each predicted worldliness after 12 weeks abroad, when controlling for worldliness before leaving the United States.

On measures of personal growth and personal change, students living with host families were not different than Americans or students in all other living arrangements. However, students living with host families were higher in satisfaction with life after 12 weeks abroad than students living with other Americans. This difference seemed to be due to living with host families versus with Americans; living with a host family marginally predicted satisfaction with life after 12 weeks abroad, even after controlling for satisfaction with life before leaving the United States. However, students with host families did not have higher life satisfaction after 12 weeks abroad when compared to students in all other living arrangements.

Relatively few behaviors abroad were associated with levels of personal growth and change at the end of the study-abroad experience. Likewise, students in different living arrangements did not appear to differ from each other on measures of personal change and growth. These findings may seem perplexing, but results of the current study suggest that the personal growth and change that students experience abroad is a fairly idiosyncratic and pervasive phenomenon, not limited to students who enact certain behaviors or who live with host families.

Although the current study used different measures than previous studies, the findings generally echo those of prior research. The current study's findings that

ethnocentrism decreases in certain students are similar to Carlson and Widaman's (1988) findings that study-abroad students held more objective, less idealized perceptions of their home country. In addition, students' wide reports of personal growth in the current study are consistent with Kitsantas (2004), who found that study abroad increased students' effectiveness in a large number of areas, including dealing with new cultures, coping, and adapting to new situations and people. The current study's findings that satisfaction with life increases across time, and that self-liking increases marginally across time, also corroborate Milstein's (2005) findings about increased communication self-efficacy and Dwyer's (2004) findings about increased self-competence in students abroad.

Other studies have investigated the role of personal traits in study-abroad outcomes. Searle and Ward (1990) found that students high in extraversion were highly psychologically adjusted while abroad; parallel findings from the current study suggest that various personality traits, such as extraversion, openness, and emotion regulation, are associated with personal growth and personal change abroad. Swagler and Jome (2005) found that agreeableness and conscientiousness were associated with psychological adjustment; the current study found the same variables are associated with personal growth. Other work with personal characteristics is in line with the findings of the current study: Kashima and Loh (2006) found that students high in cognitive closure had poorer psychological adjustment abroad. The current study, in comparison, found that low need for cognitive closure predicted satisfaction with life after 12 weeks abroad, even while controlling for earlier satisfaction with life.

In terms of behaviors while abroad, Rohrlich and Martin (1991) reported that higher frequency of communication with members of the host country was associated with higher satisfaction with the study-abroad experience; the same study found that visiting museums, talking with families, and having positive contact with host country members were all associated with study-abroad satisfaction. Findings from the current study supported the importance of behavior as well. Although satisfaction with the study-abroad experience was not a central variable in the current study, the theme about the importance of behaviors did confirm Rohrlich and Martin (1991); for instance, conversations with people from the host country and attending cultural events were correlated with identification with the host country.

## References


Adler, P. S. (1975). The transitional experience: An alternative view of culture shock. *Journal of Humanistic Psychology*, *15*, 13 – 23.

Anderson, P. H., Lawton, L., Rexeisen, R. J., & Hubbard, A. C. (2006). Short-term study abroad and intercultural sensitivity: A pilot study. *International Journal of Intercultural Relations*, *30*, 457 – 469.

Anthis, K. S. (2002). On the calamity theory of growth: The relationship between stressful life events and identity changes over time. *Identity: An International Journal of Theory and Research*, *2*, 229 – 240.

Anthis, K., & LaVoie, J. C. (2006). Readiness to change: A longitudinal study of changes in adult identity. *Journal of Research in Personality*, *40*, 209 – 219.

Barker, M., Child, C., Gallois, C., Jones, E., & Callan, V.C. (1991). Difficulties of overseas students in social and academic situations. *Australian Journal of Psychology*, *43*, 79 – 84.

Bem, D. J. (1972). Self-perception theory. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 6., pp. 1 – 62). New York: Academic Press.

Berno, T., and Ward, C. (1998, April). *Psychological and sociocultural adjustment of international students in New Zealand*. Paper presented at the Annual Meeting of the Society of Australasian Social Psychologists, Christchurch, New Zealand.

Bochner, S., McLeod, B. M., & Lin, A. (1977). Friendship patterns of overseas students: A functional model. *International Journal of Psychology*, 12, 277 – 297.

Bosma, H. A., & Kunnen, E. S. (2001). Determinants and mechanisms in ego identity development: A review and synthesis. *Developmental Review*, *21*, 39 – 66.

Burke, P. J. (2006). Identity change. *Social Psychology Quarterly*, *69*, 81 – 96.

Cable, D. M., & Judge, T. A. (1996). Person-organization fit, job choice decisions, and organizational entry. *Organizational Behavior and Human Decision Processes*, *67*, 294 – 311.

Carlson, J. S., & Widaman, K. F. (1988). The effects of study abroad during college on attitudes toward other cultures. *International Journal of Intercultural Relations*, *12*, 1 – 17.

Chen, G. M., & Starosta, W. J. (1996). Intercultural communication competence: A synthesis. *Communication Yearbook*, *19*, 353 – 383.

Coelho, G. V. (1962). Personal growth and educational development through working and studying abroad. *Journal of Social Issues*, *18*, 55 – 67.

Collentine, J., & Freed, B. (2004). Learning context and its effects on second language acquisition. Introduction. *Studies in Second Language Acquisition*, *26*, 153 - 171.

Commission on the Abraham Lincoln Study Abroad Fellowship Program. (2005). *Global competence and national needs: One million Americans studying abroad*. Washington, DC: Author.

Constantino, M. J., Wilson, K. R., Horowitz, L. M., & Pinel, E. C. (2006). The direct and stress-buffering effects of self-organization on psychological adjustment. *Journal of Social and Clinical Psychology, 25*, 333 – 360.

Côté, J. E. (1996). Sociological perspectives on identity formation: The culture-identity link and identity capital. *Journal of Adolescence*, *19*, 417 – 428.

Cramer, P. (2004). Identity change in adulthood: The contribution of defense mechanisms and life experiences. *Journal of Research in Personality*, *28*, 280 – 316.

De La Ronde, C. & Swann, W. B. Jr. (1998). Partner verification: Restoring shattered images of our intimates. *Journal of Personality and Social Psychology, 75*, 374 – 382.

Dewey, D. P. (2004). A comparison of reading development by learners of Japanese in intensive domestic immersion and study abroad contexts. *Studies in Second Language Acquisition*, *26*, 303 - 327.

Diáz-Campos, M. (2004). Context of learning in the acquisition of Spanish second-language phonology. *Studies in Second Language Acquisition*, *26*, 249 – 273.

Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The Satisfaction With Life Scale. *Journal of Personality Assessment*, 49, 71 – 75.

Drews, D. R., Meyer, L. L., & Peregrine, P. N. (1996). Effects of study abroad on conceptualizations of national groups. *College Student Journal*, *30*, 452 – 461.

Dwyer, M. M. (2004). More is better: The impact of study abroad duration. *Frontiers: The Interdisciplinary Journal of Study Abroad*, *10*, 151 - 164.

Farson, R. (1974). *Birthrights*. New York: Macmillan.

Forgas, J. P., & Bower, G. H. (1987). Mood effects on person-perception judgments. *Journal of Personality and Social Psychology*, *53*, 53 – 60.

Furnham, A., & Tresize, L. (1981). The mental health of foreign students. *Social Science and Medicine*, *17*, 365 – 370.

Gómez, A., Seyle, D. C., Huici, C., & Swann, W. B., Jr. (2007). Seeking verification of one's group identity. Manuscript submitted for publication.

Gosling, S. D., Rentfrow, P. J., & Swann, W. B., Jr. (2003). A Very Brief Measure of the Big Five Personality Domains. *Journal of Research in Personality, 37,* 504 – 528.

Gosling, S. D., Vazire, S., Srivastava, S., & John, O. P. (2004). Should we trust Web-based studies? A comparative analysis of six preconceptions about Internet questionnaires. *American Psychologist, 59,* 93-104.

Grotevant, H. D. (1987). Toward a process model of identity formation. *Journal of Adolescent Research*, *2*, 203 – 222.

Gross, J. J., & John, O. P. (2003). Individual differences in two emotion regulation processes: Implications for affect, relationships, and well-being. *Journal of Personality and Social Psychology*, *85*, 348 – 362.

Gurman, E. B. (1989). Travel abroad: A way to increase creativity? *Educational Research Quarterly*, 13, 12 – 16.

Henderson, G., Milhouse, V., & Cao, L. (1993). Crossing the gap: An analysis of Chinese students' culture shock in an American university. *College Student Journal*, *27*, 380 – 389.

Higgins, E. T., & Bargh, J. A. (1987). Social cognition and social perception. *Annual Review of Psychology*, *38*, 369 – 425.

Hixon, J. G., & Swann, W. B., Jr. (1993). When does introspection bear fruit? Self-reflection, self-insight, and interpersonal choices. *Journal of Personality and Social Psychology, 64,* 35 – 43.

Hogg, M. A., & Grieve, P. (1999). Social identity theory and the crisis of confidence in social psychology: A commentary, and some research on uncertainty reduction. *Asian Journal of Social Psychology*, *2*, 79 – 93.

Hornsey, M. J., & Hogg, M. A. (1999). Subgroup differentiation as a response to an overly inclusive group: A test of optimal distinctiveness theory. *European Journal of Social Psychology*, *29*, 543 – 550.

Ingraham, E. C., & Peterson, D. L. (2004). Assessing the impact of study abroad on student learning at Michigan State University. *Frontiers: The Interdisciplinary Journal of Study Abroad*, *10*, 83 – 100.

Jacobsen, E. H. (1963). Sojourn research: A definition of the field. *Journal of Social Issues*, *19*, 123 – 129.

John, O., & Srivastava, S. (1999). The Big Five Trait taxonomy: History, measurement, and theoretical perspectives. In L. A. Pervin & O. P. John (Eds.), *Handbook of personality: Theory and research* (pp. 102 – 138). New York: Guilford.

Juhasz, A. M., & Walker, A. M. (1988). The impact of study abroad on university students' self-esteem and self-efficacy. *College Student Journal*, *22*, 329 – 341.

Kashima, E. S., & Loh, E. (2006). International students' acculturation: Effects of international, conational, and local ties and need for closure. *International Journal of Intercultural Relations*, *30*, 471- 485.

Kitsantas, A. (2004). Studying abroad: The role of college students' goals on the development of cross-cultural skills and global understanding. *College Student Journal*, *38*, 441 – 452.

Kline, P. (2000). *Handbook of Psychological Testing*. London, Routledge.

Kroger, J., & Green, K. E. (1996). Events associated with identity status change. *Journal of Adolescence*, *19*, 477 – 490.

Leong, C.–H., & Ward, C. (2000). Identity conflict in sojourners. *International Journal of Intercultural Relations*, *24*, 763 – 776.

Marcia, J. E. (1966). Development and validation of ego identity status. *Journal of Personality and Social Psychology*, *3*, 551 – 558.

Markus, H. R. (1977). Self-schemata and processing information about the self. *Journal of Personality and Social Psychology*, *35*, 63 – 78.

Markus, H. R., & Cross, S. (1990). The interpersonal self. In L. A. Pervin (Ed.), *Handbook of personality: Theory and research* (pp. 576 – 608). New York: Guilford.

Markus, H. R., & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion, and motivation. *Psychological Review*, *98*, 224 – 253.

McCabe, L. T. (1994). The development of a global perspective during participation in Semester at Sea: A comparative global education program. *Educational Review*, *46*, 275 – 286.

McCrae, R. R. (2002). NEO-PI-R data from 36 cultures: Further intercultural comparisons. In R. R. McCrae & J. Allik (Eds.), *The Five-Factor model of personality across cultures* (pp. 105 – 125). New York: Kluwer Academic.

McCrae, R. R., & Costa, P. T. (1986). Clinical assessment can benefit from recent advances in personality psychology. *American Psychologist*, *41*, 1001 – 1003.

McNulty, S. E., & Swann, W. B., Jr. (1994). Identity negotiation in roommate relationships: The self as architect and consequence of social reality. *Journal of Personality and Social Psychology*, *67*, 1012 – 1023.

Mead, G. H. (1934). *Mind, self, and society*. Chicago: University of Chicago Press.

Milstein, T. (2005). Transformation abroad: Sojourning and the perceived enhancement of self-efficacy. *International Journal of Intercultural Relations*, *29*, 217 – 238.

Nario-Redmond, M. R., Biernat, M., & Eidelman, S. (2004). The Social and Personal Identities Scale: A measures of the differential importance ascribed to social and personal self-categorizations. *Self and Identity*, *3*, 143 – 175.

Nelson, T. E., & Garst, J. (2005). Values-based political messages and persuasion: Relationships among speaker, recipient, and evoked values. *Political Psychology*, *26*, 489 – 515.

Neuliep, J. W. (2002). Assessing the reliability and validity of the Generalized Ethnocentrism Scale. *Journal of Intercultural Communication Research*, *31*, 201-215.

Oakes, P. J., Haslam, S. A., & Turner, J. C. (1994). *Stereotyping and social reality*. Malden, MA: Blackwell.

Oguri, M., & Gudykunst, W. B., (2002). The influence of self-construals and communication styles on sojourners' psychological and sociocultural adjustment. *International Journal of Intercultural Relations*, *26*, 577 - 593.

Onorato, R. S., & Turner, J. C. (2001). The "I," the "me," and the "us": The psychological group and self-concept maintenance and change. In C. Sedikides & M. B. Brewer (Eds.), *Individual self, relational self, collective self*. Philadelphia: Psychology Press.

Onorato, R. S., & Turner, J. C. (2004). Fluidity in the self-concept: The shift from personal to social identity. *European Journal of Social Psychology*, *34*, 257 – 278.

Opper, S., Teichler, U., & Carlson, J. (1990). *Impact of study abroad programmes on students and graduates.* London: Jessica Kingsley.

Orahood, T., Kruze, L., & Pearson, D. E. (2004). The impact of study abroad on business students' career goals. *Frontiers: The Interdisciplinary Journal of Study Abroad*, 10, 117 - 130.

Oyserman, D., Bybee, D., & Terry, K. (2006). Possible selves and academic outcomes: How and when possible selves impel action. *Journal of Personality and Social Psychology*, *91*, 188 – 204.

Pak, A. W., Dion, K. L., & Dion, K. K. (1991). Social-psychological correlates of experienced discrimination: Test of the double jeopardy hypothesis. *International Journal of Intercultural Relations*, *15*, 243 – 254.

Pinel, E. C., Long, A. E., Landau, M. J., Alexander, K., & Pyszczynski, T. (2006). Seeing I to I: A pathway to interpersonal connectedness. *Journal of Personality and Social Psychology*, *90*, 243 – 257.

Redmond, M. V., & Bunyi, J. M. (1993). The relationship of intercultural communication competence with stress and the handling of stress as reported by international students. *International Journal of Intercultural Relations*, *17*, 235 – 254.

Ritchie, M. A. (2003). Risk management in study abroad: Lessons from the wilderness. *Frontiers: The Interdisciplinary Journal of Study Abroad*, 9, 53 – 69.

Rohrlich, B. F., & Martin, J. N. (1991). Host country and re-entry adjustment of student sojourners. *International Journal of Intercultural Relations*, *15*, 163 - 182.

Rosenberg, M. (1989). *Society and the adolescent self-image*. Revised edition. Middletown, CT: Wesleyan University Press.

Ryan, R. M., LaGuardia, J. G., & Rawsthorne, L. J. (2005). Self-complexity and the authenticity of self-aspects: Effects on well being and resilience to stressful events. *North American Journal of Psychology*, *7*, 431 – 447.

Sam, D. L., & Eide, R. (1991). Survey of mental health of foreign students. *Scandinavian Journal of Psychology*, *32*, 22 – 30.

Savicki, V., Downing-Burnette, R., Heller, L., Binder, F., & Suntinger, W. (2004). Contrasts, changes, and correlates in actual and potential intercultural adjustment. *International Journal of Intercultural Relations*, *28*, 311 – 329.

Searle, W., & Ward, C. (1990). The prediction of psychological and sociocultural adjustment during cross-cultural transitions. *International Journal of Intercultural Relations*, *14*, 449 – 464.

Segalowitz, N., & Freed, B. F. (2004). Context, contact, and cognition in oral fluency acquisition: Learning Spanish in at home and study-abroad contexts. *Studies in Second Language Acquisition*, *26*, 173 – 199.

Segalowitz, N., Freed, B. F., Collentine, J., Lafford, B., Lazar, N., & Diáz-Campos, M. (2004). A comparison of Spanish second language acquisition in two different contexts: Study abroad and the domestic classroom. *Frontiers: The Interdisciplinary Journal of Study Abroad*, *10*, 1 – 18.

Shiloh, S., Sorek, G., & Terkel, J. (2003). Reduction of state anxiety by petting animals in a controlled laboratory experiment. *Anxiety, Stress, & Coping: An International Journal*, *16*, 387 – 395.

Stephenson, S. (1999). Study abroad as a transformational experience and its effect upon study abroad students and host nationals in Santiago, Chile. *Frontiers: The Interdisciplinary Journal of Study Abroad*, *5*, 1 – 38.

Stroebe, W., Lenkert, A., & Jonas, K. (1988). Familiarity may breed contempt: The impact of student exchange on national stereotypes and attitudes. In W. Stroebe, D. Bar-Tal, & M. Hewstone (Eds.), *The social psychology of intergroup relations* (pp. 167 – 187). New York: Springer.

Stryker, S., & Statham, A. (1985). Symbolic interaction and role theory. In G. Lindzey & E. Aronsen (Eds.), *The handbook of social psychology* (3rd ed., Vol. 1, pp. 311 – 378). New York: Random House.

Sussman, K., & Hogg, M. A. (1998). Uncertainty and social identification: A field study of student groups. Unpublished manuscript, Princeton University, and the University of Queensland.

Sussman, N. M. (2000). The dynamic nature of cultural identity throughout cultural transitions: Why home is not so sweet. *Personality and Social Psychological Review*, *4*, 355 – 373.

Sussman, N. M. (2001). Repatriation transitions: Psychological preparedness, cultural identity, and attributions among American managers. *International Journal of Intercultural Relations*, *25*, 109 – 123.

Sussman, N. M. (2002). Testing the cultural identity model of the cultural transition cycle: Sojourners return home. *International Journal of Intercultural Relations*, *26*, 391 – 408.

Swagler, M. A., & Jome, L. M. (2005). The effects of personality and acculturation on the adjustment of North American sojourners in Taiwan. *Journal of Counseling Psychology*, *52*, 527 – 536.

Swann, W. B., Jr. (1983). Self-verification: Bringing social reality into harmony with the self. In J. Suls & A. G. Greenwald (Eds.), *Social psychological perspectives on the self* (Vol. 2, pp. 33-66). Hillsdale, NJ: Erlbaum.

Swann, W. B., Jr. (1987). Identity negotiation: Where two roads meet. *Journal of Personality and Social Psychology*, *53*, 1038 – 1051.

Swann, W. B., Jr. (1997). The trouble with change: Self-verification and allegiance to the self. *Psychological Science*, *8*, 177 – 180.

Swann, W. B., Jr. (1990). To be adored or to be known: The interplay of self-enhancement and self-verification. In R. M. Sorrentino & E. T. Higgins (Eds.), *Foundations of social behavior* (pp. 408 – 448). New York: Guilford.

Swann, W. B., Jr. (1996) *Self-traps: The elusive quest for higher self-esteem*. New York: W. H. Freeman.

Swann, W. B., Jr., & Bosson, J. K. (in press). Identity negotiation: A theory of self and social interaction. In O. John, R. Robins, & L. Pervin (Eds.), *Handbook of Personality Psychology: Theory and Research*. New York: Guilford Press.

Swann, W. B., Jr., Chang-Schneider, C. S., & Angulo, S. (2007). Self-verification in relationships as an adaptive process. Chapter to appear in J. Wood, A. Tesser & J. Holmes (Eds.), *Self and relationships,* Psychology Press: New York.

Swann, W. B., Jr., & Ely, R. J. (1984). A battle of wills: Self-verification versus behavioral confirmation. *Journal of Personality and Social Psychology*, *46*, 1287 – 1302.

Swann, W. B., Jr., Griffin, J.J., Predmore, S., & Gaines, B. (1987). The cognitive-affective crossfire: When self-consistency confronts self-enhancement. *Journal of Personality and Social Psychology, 52*, 881 – 889.

Swann, W. B., Jr., Hixon, J. G., & De La Ronde, C. (1992). Embracing the bitter truth: Negative self-concepts and marital commitment. *Psychological Science, 3*, 118 – 121.

Swann, W. B., Jr., Milton, L. P., & Polzer, J.T. (2000). Should we create a niche or fall in line? Identity negotiation and small group effectiveness. *Journal of Personality and Social Psychology.79*, 238-250.

Swann, W. B., Jr., & Pelham, B. W. (2002). Who wants out when the going gets good? *Journal of Self and Identity, 1*, 219 – 233.

Swann, W. B., Jr., Pelham, B. W., & Krull, D. S. (1989). Agreeable fancy or disagreeable truth? How people reconcile their self-enhancement and self-verification needs. *Journal of Personality and Social Psychology, 57*, 782 – 791.

Swann, W. B., & Read, S. J. (1981). Self-verification processes: How we sustain our self-conceptions. *Journal of Experimental Social Psychology, 17*, 351 – 372.

Swann, W.B., Jr., Rentfrow, P. J., & Guinn, J. (2002). Self-verification: The search for coherence. In M. Leary & J. Tagney (Eds.), *Handbook of self and identity* (pp. 367 – 383). New York: Guilford.

Swann, W. B., Jr., Stein-Seroussi, A., & Giesler, R. B. (1992). Why people self-verify. *Journal of Personality and Social Psychology*, *62*, 392 – 401.

Swann, W. B., Jr., Wenzlaff, R. M., Krull, D. S., & Pelham, B. W. (1992). The allure of negative feedback: Self-verification strivings among depressed persons. *Journal of Abnormal Psychology*, *101*, 293 – 306.

Swann, W. B., Jr., Wenzlaff, R. M., & Tafarodi, R. W. (1992). Depression and the search for negative evaluations: More evidence of the role of self-verification. *Journal of Abnormal Psychology*, *101*, 314 – 371.

Tafarodi, R. W., & Swann, W. B., Jr. (2001). Two-dimensional self-esteem: Theory and measurement. *Personality and Individual Differences, 31*, 653-673.

Thomas, B. (2002). Study abroad continues to flourish at UD--the institution where it began in 1920. Retrieved November 21, 2006, from http://www.udel.edu/PR/UDaily/01-02/studyabroad111902.html.

Tokowicz, N., Michael, E. B., & Kroll, J. F. (2004). The roles of study-abroad experience and working-memory capacity in the types of errors made during translation. *Bilingualism: Language and Cognition*, *7*, 255 – 272.

Turner, J. C. (1982). Towards a cognitive redefinition of the social group. In H. Tajfel (Ed.), *Social identity and intergroup relations* (pp. 15 – 40). Cambridge, England: Cambridge University Press.

Turner, J. C. (1984). Social identification and psychological group formation. In H. Tajfel (Ed.), *The social dimension: European developments in social psychology* (Vol. 2, pp. 518 – 538). Cambridge, England: Cambridge University Press.

Turner, J. C. (1991). *Social influence*. Milton Keynes, England: Open University Press.

Turner, J. C., Hogg, M. A., Oakes, P. J., Reicher, S. D., & Wetherell, M. S. (1987). Rediscovering the social group: A self-categorization theory. Oxford: Blackwell.

Turner, J. C., Oakes, P. J., Haslam, S. A., & McGarty, C. (1994). Self and collective: Cognition and social context. *Personality and Social Psychology Bulletin*, *20*, 454 – 463.

Turner, J. C., & Onorato, R. S. (1999). Social identity, personality, and the self-concept: A self-categorization perspective. In T. R. Tyler, R. M. Kramer, & O. P. John (Eds.), *The psychology of the social self* (pp. 11 – 46). Mahwah, NJ: Lawrence Erlbaum Associates Publishers.

Ward, C., Bochner, S., & Furnham, A. (2001). *The psychology of culture shock* (2nd ed.). Philadelphia: Routledge.

Ward, C., & Kennedy, A. (1993). Where's the "culture" in cross-cultural transition? *Journal of Cross-Cultural Psychology*, *24*, 221 – 249.

Wood, S. A., & Hampson, S. E. (2005). Measuring the Big Five with single items using a bipolar response scale. *European Journal of Personality, 19,* 373-390.

Zaharna, R. S. (1989). Self-shock: The double-binding challenge of identity. *International Journal of Intercultural Relations*, *13*, 501 – 525.

Zapf, M. K. (1991). Cross-cultural transitions and wellness: Dealing with culture shock. *International Journal for the Advancement of Counseling*, *14*, 105 – 119.

Zeitlin, L. R. (1996). How much woe when we go: A quantitative method for predicting culture shock. *International Journal of Stress Management*, *3*(2), 85 – 98.

Zheng, X., & Berry, J. W. (1991). Psychological adaptation of Chinese sojourners in Canada. *International Journal of Psychology*, *26*, 451 – 470.

## Vita

Sarah Kathryn Angulo, daughter of Peter L. and Joan M. Hammes, was born July 16, 1977, in Danbury, CT. Sarah graduated from the University of Notre Dame in May 1999 with a Bachelor of Arts. Her majors were Psychology and Spanish. Part of her college education involved studying and working abroad in Toledo, Spain. After graduating from Notre Dame, Sarah worked in human resources for an advertising agency in San Francisco, then helped recruit employees for a software company in Silicon Valley. In fall 2002, Sarah enrolled in the social/personality Ph.D. program at the University of Texas at Austin. During her graduate studies, Sarah conducted research on how verbal disinhibition, communication, and sexism influence romantic relationships. Before beginning her dissertation on identity change in students abroad, she also conducted experiments on self-esteem. Sarah is first author of "Swimming serenely in a sea of words: Progressive men accept verbally disinhibited women," currently under review at the *Journal of Social and Personal Relationships*. She is co-author of the chapter "Self-verification in relationships as an adaptive process" in J. Wood, A. Tesser, & J. Holmes (Eds.), *Self and Relationships*. Sarah has been an instructor for undergraduate courses in psychology, and a lab in statistics and writing. She received the Rick Jay and Paula Myrick Short Endowed Fellowship in Psychology; the American Association for University Women Austin Chapter Dissertation Fellowship; and the Janet T. Spence Teaching Award Certificate of Commendation for meritorious teaching in an undergraduate course.

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